

**Final Environmental Assessment:
U.S. Air Force Academy
Military Family Housing Privatization
Initiative
El Paso County, CO**



Prepared for:

U.S. Air Force Center for Environmental Excellence

by:

**Labat Environmental, Inc. and
Solutions to Environmental Problems, Inc.
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14. ABSTRACT This EA evaluates the potential for environmental consequences from the proposed action and no action alternative for implementing the MFHPI at USAF A. USAF A currently has 1,208 housing units in three housing areas: Pine Valley, Douglass Valley, and the Rectories. USAF A has a requirement for military family housing for 427 families. The proposed action is for the Air Force to convey 1,208 existing housing units and associated infrastructure and utilities to a private real estate development and property management company. The Air Force proposes that the developer would then demolish 800 units renovate 316 units, and construct 19 new units; no renovation is required for 92 existing units. The developer would own all housing units and related infrastructure, would lease the land from USAF A, and would maintain and manage the housing areas for a minimum of 427 military families for 50 years. Under the no action alternative, the Air Force would not implement the MFHPI at USAF A and would continue to manage and maintain military family housing in accordance with existing Air Force policy. The Air Force would likely demolish, renovate, and construct houses to eventually reach the same end state as under the proposed action to reach the minimum requirement of 427 units. All demolition and construction activities would occur on USAF A property. Resources and issues addressed in the EA include air quality; soils, geology, and topography; water resources; biological resources; human health and safety; solid waste and hazardous materials; noise; cultural resources; land use; traffic and transportation; and socioeconomics and environmental justice.					
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Cover Sheet:
Final Environmental Assessment
Military Family Housing Privatization Initiative
U.S. Air Force Academy

- A. *Responsible Agency:* Department of the Air Force, U.S. Air Force Academy (USAFA), Colorado (CO).
- B. *Cooperating Agencies:* None.
- C. *Proposals and Actions:* This environmental assessment (EA) has been prepared in accordance with the *National Environmental Policy Act* to analyze the potential environmental consequences of the proposed Military Family Housing Privatization Initiative (MFHPI) at USAFA, CO. USAFA is located in El Paso County, CO, approximately 6 miles north of downtown Colorado Springs, CO. No public comments were received on the Draft EA during a 30-day availability period ending May 13, 2006. The attached Finding of No Significant Impact documents the U.S. Air Force's decision to implement the proposed action.
- D. *Comments and Inquiries:* Comments or inquiries regarding this document should be directed to Mr. Larry Reisinger, HQ USAFA/CECV, U.S. Air Force Academy, 8120 Edgerton Drive, Suite 40, USAF Academy CO 80840-2400 (719-333-6716).
- E. *Designation:* Final Environmental Assessment and Finding of No Significant Impact
- F. *Abstract:* This EA evaluates the potential for environmental consequences from the proposed action and no action alternative for implementing the MFHPI at USAFA. USAFA currently has 1,208 housing units in three housing areas: Pine Valley, Douglass Valley, and the Rectories. USAFA has a requirement for military family housing for 427 families. The proposed action is for the Air Force to convey 1,208 existing housing units and associated infrastructure and utilities to a private real estate development and property management company. The Air Force proposes that the developer would then demolish 800 units, renovate 316 units, and construct 19 new units; no renovation is required for 92 existing units. The developer would own all housing units and related infrastructure, would lease the land from USAFA, and would maintain and manage the housing areas for a minimum of 427 military families for 50 years. Under the no action alternative, the Air Force would not implement the MFHPI at USAFA and would continue to manage and maintain military family housing in accordance with existing Air Force policy. The Air Force would likely demolish, renovate, and construct houses to eventually reach the same end state as under the proposed action to reach the minimum requirement of 427 units. All demolition and construction activities would occur on USAFA property. Resources and issues addressed in the EA include air quality; soils, geology, and topography; water resources; biological resources; human health and safety; solid waste and hazardous materials; noise; cultural resources; land use; traffic and transportation; and socioeconomics and environmental justice.

**Finding of No Significant Impact
Military Family Housing Privatization Initiative
U.S. Air Force Academy, Colorado**

INTRODUCTION

The United States Air Force proposes to implement a Military Family Housing Privatization Initiative (MFHPI) at the U.S. Air Force Academy (USAFA). USAFA currently has 1,208 housing units in three housing areas: Pine Valley, Douglass Valley, and the Rectories. USAFA has a requirement for military family housing for 427 families. Pursuant to Section 102(2)(c) of the *National Environmental Policy Act* (NEPA) of 1969 and the Council on Environmental Quality regulations (40 CFR 1500-1508) implementing procedural provisions of NEPA, the Department of Defense (DoD) gives notice that an environmental assessment (EA) has been prepared for the proposed housing privatization initiative at USAFA, attached and incorporated by reference. This document serves as a Finding of No Significant Impact (FONSI).

THE PROPOSED ACTION AND ALTERNATIVE ACTIONS

The following paragraphs describe the Proposed Action and the No Action Alternative.

Proposed Action

The proposed action is for the Air Force to convey 1,208 existing housing units and associated infrastructure and utilities to a private real estate development and property management company. The Air Force proposes that the developer would then demolish 800 units, renovate 316 units, and construct 19 new units; no renovation is required for 92 existing units. The developer would own all housing units and related infrastructure, would lease the land from USAFA, and would maintain and manage the housing areas for a minimum of 427 military families for 50 years.

No Action Alternative

Under the No Action Alternative, the Air Force would not implement the MFHPI at USAFA and would continue to manage and maintain military family housing in accordance with existing Air Force policy. The Air Force would likely demolish, renovate, and construct houses to eventually reach the same end state as under the Proposed Action to reach the minimum requirement of 427 units.

ENVIRONMENTAL EFFECTS

The environmental effects of the Proposed Action and No Action Alternative are summarized below.

Resource	Summary of Impact Analysis Results	
	Proposed Action	No Action
Air Quality	Short-term intermittent impacts, not significant.	Short-term intermittent impacts, not significant.
Soils, Geology, and Topography	No significant impacts.	No significant impacts.
Water Resources	No significant impacts.	No significant impacts.
Biological Resources	No impacts to wildlife or threatened / endangered / sensitive species, or to vegetation in native or semi-native areas. Data gap for potential for impacts to vegetation in developed areas, in terms of fire prevention and insect / disease management.	No impacts to vegetation, wildlife, or threatened / endangered / sensitive species.
Human Health and Safety	No significant adverse impacts; long-term beneficial impact due to removal of hazardous substances of construction (asbestos and lead-based paint).	Decreased potential for and longer period of time to realize long-term beneficial impact due to removal of hazardous substances of construction (asbestos and lead-based paint).
Solid Waste and Hazardous Materials	Short-term increase followed by a long-term decrease in solid waste generation. Short-term increase in hazardous waste generation leading to a long-term decrease in the potential for residential exposure to hazardous substances used in building materials. No significant adverse impacts.	Short-term increases followed by long-term decreases in waste generation if any construction or demolition projects are undertaken. Decreased potential for long-term health benefit due to removal of hazardous substances in building materials. No significant impacts.
Noise	Intermittent, short-term impacts, not significant.	Intermittent, short-term impacts, not significant.
Cultural Resources	No significant impacts.	No significant impacts.
Land Use	Increased open space from demolition of surplus housing, no significant adverse impacts.	Decreased potential for demolition of surplus housing that would increase open space; no significant impacts.
Traffic and Transportation	Short-term increases in heavy vehicle traffic during transition period, long-term decrease in vehicular traffic associated with decreased residential population. No significant impacts.	Short-term increases in heavy vehicle traffic if any construction or demolition projects are undertaken. Lower potential for long-term decrease in residential vehicular traffic. No significant impacts.
Socioeconomics and Environmental Justice	No impacts to employment and income, housing, or environmental justice. Closure of one or more on-base public schools to be coordinated with school district, not predicted to be a significant impact.	No impacts to employment and income, housing, public schools, or environmental justice.

As noted in this summary table, there is a data gap for the potential for impacts to vegetation in developed areas, in terms of fire prevention and insect/disease management. This data gap is due to the following factors:

- The current draft of the project requirements (Draft RFP dated 3/28/06) states that the developer must comply with USAFA's *Integrated Natural Resources Management Plan* only in native and semi-native areas; and
- Specific developers' proposals have not yet been submitted to the Air Force, nor has the final lease been negotiated, which would define any other commitments or restrictions regarding management of this resource.

This data gap will be addressed when the lease is finalized, with the potential for impacts to vegetation in non-native areas able to be assessed at that time.

There would be no significant cumulative impacts.

Finding of No Significant Impact

Based on the attached EA, conducted in accordance with the Council on Environmental Quality regulations implementing the *National Environmental Policy Act* of 1969, as amended, and 32 CFR 989, 15 Jul 99, and amended 11 June 01, an assessment of the identified environmental effects has been prepared for the proposed MFHPI at USAFA. No public comments were received on the Draft EA during a 30-day availability period ending May 13, 2006. I find that the action will have no significant impact on the quality of the human environment; thus, an Environmental Impact Statement is not warranted.


JIMMY E. MCMILLIAN, Colonel, USAF
Commander, 10 ABW


Date

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B – Design, Construction, and Environmental Requirements from Draft RFP

C – Letter Regarding Ongoing Informal Consultation with U.S. Fish and Wildlife Service

ENVIRONMENTAL ASSESSMENT: MILITARY FAMILY HOUSING PRIVATIZATION INITIATIVE AT THE U.S. AIR FORCE ACADEMY

SECTION 1. PURPOSE AND NEED

1.1 Introduction

The quality of government-owned housing has declined for more than 30 years primarily due to lack of priority. The Department of Defense (DoD) estimates that about 200,000 military family housing units are old, lack modern amenities, and require renovation or replacement. According to DoD, completing this work at current funding levels and using traditional military construction methods would take 30 years and cost about \$16 billion (Yim 1999). To improve housing more economically and faster than could be achieved if only traditional military construction funds were used, the Congress enacted legislation at DoD's request authorizing a five-year pilot program, termed the Military Family Housing Privatization Initiative (MFHPI), to allow private sector financing, ownership, operation, and maintenance of military housing. Under the program, which was initially authorized in 1996 under the *National Defense Authorization Act* and was reauthorized in 2001 for an additional five years, DoD can provide direct loans, loan guarantees, and other incentives to encourage private developers to construct and operate housing either on or off military installations. The program takes advantage of the private sector's investment capital and housing construction expertise to provide better quality housing to its service members. DoD believes that the authorities the MFHPI provides will contribute significantly to its plan to solve its housing situation by 2010, when combined with traditional funded government construction (Yim 1999).

Housing privatization is considered a major federal action subject to the requirements of the *National Environmental Policy Act* (NEPA) of 1969, as amended, which requires Federal agencies to consider environmental impacts in their decision-making process. This environmental assessment (EA) evaluates the potential for environmental consequences of real property transactions associated with the privatization of housing at the U.S. Air Force Academy (USAFA), in accordance with the President's Council on Environmental Quality (CEQ) regulations for implementing NEPA (Title 40 Code of Federal Regulations (CFR) 1500-1508) and Air Force regulations for the Environmental Impact Analysis Process (32 CFR 989). These Federal regulations establish both the administrative process and substantive scope of the environmental impact evaluation, designed to ensure deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action. A notice of availability was published in *The Gazette* (Colorado Springs) on April 16, 2006, announcing the availability of the Draft EA for a 30-day review period ending May 13, 2006; no public comments were received.

This EA presents the purpose and need for the action (Section 1), describes the proposed action and alternatives (Section 2), identifies the characteristics of the affected environment (Section 3), and summarizes the analysis of the potential for environmental consequences (Section 4). Agencies contacted (Section 5), the list of preparers (Section 6), and references (Section 7) are also included. Appendices present terms, acronyms and abbreviations used (Appendix A); the design, construction, and environmental requirements for the proposed action (Appendix B); and

a letter regarding ongoing informal consultation with the U.S. Fish and Wildlife Service (Appendix C).

1.2 Project Location

The 18,455-acre USAFA is situated along the Rocky Mountain Front Range about six miles north of downtown Colorado Springs and approximately 60 miles south of Denver (Figure 1). The western edge of USAFA abuts the Pike National Forest. The expanding City of Colorado Springs lies east and south of USAFA. The towns of Monument and Palmer Lake, and unincorporated land in El Paso County, lie to the north.

Authorized by Congress in 1954 and completed in 1958, USAFA today supports a population of more than 4,300 cadets in residence; active-duty military and their dependents in residence numbering over 2,600; almost 1,400 commuting members of the military; and more than 3,400 commuting civilians. USAFA's mission includes the education and training of cadets to be future leaders of the Air Force; and providing direct support for cadets and the base community. USAFA is a direct-reporting unit, with all of the facilities and organizational structures common to a major command. Superimposed on this structure are the facility requirements of a four-year college offering courses in sciences, humanities, military training, and physical education.

USAFA covers an area that is about 5 miles wide by 7 miles long. Boundaries were originally based on the need for airspace, land-based military training, room for future expansion, and viewshed protection. The original master plan clustered development into separate functional use areas and devoted nearly 70 percent of the base to open space. Two planning principles incorporated into the master plan included the establishment of major functional sub-areas: cadet area, airfield/flight line, logistics and support areas, housing and neighborhoods, training areas, and community center; and establishment of a road network that separates the interaction of public, private, and service vehicular traffic.

1.3 Purpose of and Need for Action

Air Force policy establishes a minimum family housing requirement for each installation, based on the following four criteria:

- The need for a military community,
- Housing for personnel in key and essential positions,
- Preservation of historic housing, and
- Housing for the personnel whose level of regular military compensation is below 50% of the median family income in the local area.

USAFA's 2004 Housing Requirements and Market Analysis (HRMA) report concluded that there is a surplus of 765 housing units at USAFA (USAF 2004a). Currently, a portion of the military housing requirements for Peterson Air Force Base (AFB), Schriever AFB, and Cheyenne Mountain Air Force Station are being met using available USAFA assets to house more than 200 service members; Peterson and Schriever AFBs are presently planning for their own housing privatization initiatives to directly meet the needs of their service personnel; these

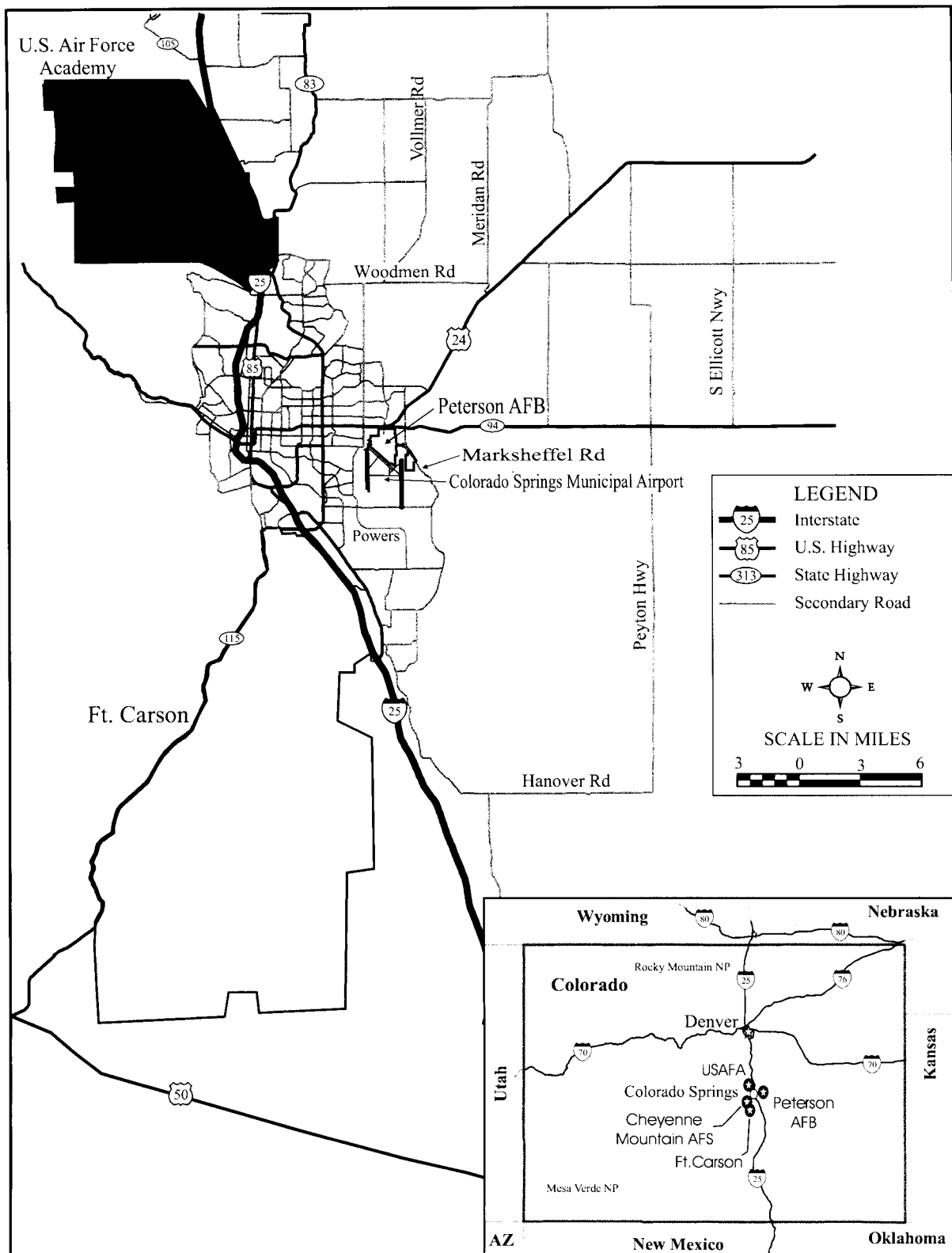


Figure 1. Location of Project Area

plans contribute to the surplus projected for USAFA military housing. For the most recent three-month reporting period for which data were available (June - August 2005), a vacancy rate of 25.6% was reported for USAFA housing.

USAFA has identified a need to improve the quality of the military housing available to its service members. Of the 1,208 existing USAFA housing units proposed for conveyance, only 95 (less than 8%) have been rated as meeting or exceeding Air Force standards. These include 92 units in the Douglass Valley development that were built in 2004, and Units 6550, 6776 (Carlton House), and 6950 (Otis House) in the Pine Valley development. With the exception of the units constructed in 2004, the units were built in the 1930s to 1950s. Approximately 65 to 80% of the units in Douglass Valley and the main portion of Pine Valley had their kitchens and baths remodeled eight to twelve years ago. However, none of these units, nor the two Rectories units, meet the current National Fire Protection Administration (NFPA) codes, due to each having a sloped truss roof system with asphalt shingles covering the original built-up tar flat roof.

Based on the HRMA findings of significant surplus housing at USAFA, the installation also needs to reduce the overall housing inventory, so that the number of units requiring management, maintenance, and periodic renovation is in line with USAFA's projected needs, achieving a more cost-efficient housing function.

SECTION 2. ALTERNATIVES INCLUDING THE PROPOSED ACTION

This section presents the proposed action and the no action alternative, and briefly describes alternatives that were identified but will not be considered in detail in the EA.

2.1 Alternative 1 – Proposed Action

The MFHPI allows USAFA to address housing needs through conveyance of improvements and leasing of specialized land parcels to a private developer for the purpose of privately financing the revitalization of military housing areas.

USAFA proposes to conduct a real estate transaction authorized by the MFHPI to convey 1,208 existing housing units and certain associated improvements, and lease approximately 576 acres of land divided among six parcels of housing units, to a Project Owner. The Project Owner will obtain necessary financing; provide required equity; and plan, design, develop, renovate, demolish, construct, own, operate, maintain, and manage a rental housing development, including all paving and drainage, as well as any utilities conveyed to or constructed by the Project Owner, for a minimum of 427 military families for 50 years. The Project Owner will be the successful bidder in response to a Request for Proposals (RFP) for this activity, and has not yet been identified. Appendix B presents the detailed design, construction, and environmental requirements from the most recent version of the Draft RFP (March 28, 2006); these details are summarized in the remainder of this subsection.

USAFA's published timeline for the proposed project consists of release of the solicitation / RFP in March 2006; notification of selected Project Owner by September 2006; and closing the transaction in December 2006. All construction, demolition, and renovation will be completed within six years of closing the transaction.

The proposed action involves a non-Federal Acquisition Regulation (FAR) real estate transaction with the Project Owner under which the Government will convey 1,208 existing housing units and certain associated improvements, and lease approximately 576 acres of land divided among six parcels (A through F), as follows:

Housing Area	Existing Units	Approximate Acres
Parcel A, Douglass Valley, main	390	157
Parcel B, Douglass Valley SOQs*	45	97
Parcel C, Douglass Valley, new	110	58
Parcel D, Pine Valley, main	658	255
Parcel E, Pine Valley GOQs*	3	7
Parcel F, Rectories	2	2
Total Housing Conveyed	1,208	576

*SOQ = senior officers quarters; GOQ = general officers quarters

All parcels are located in different neighborhoods on the main base with the first unit built in 1930. The location of each of the housing areas is shown in Figure 2. A detailed depiction of

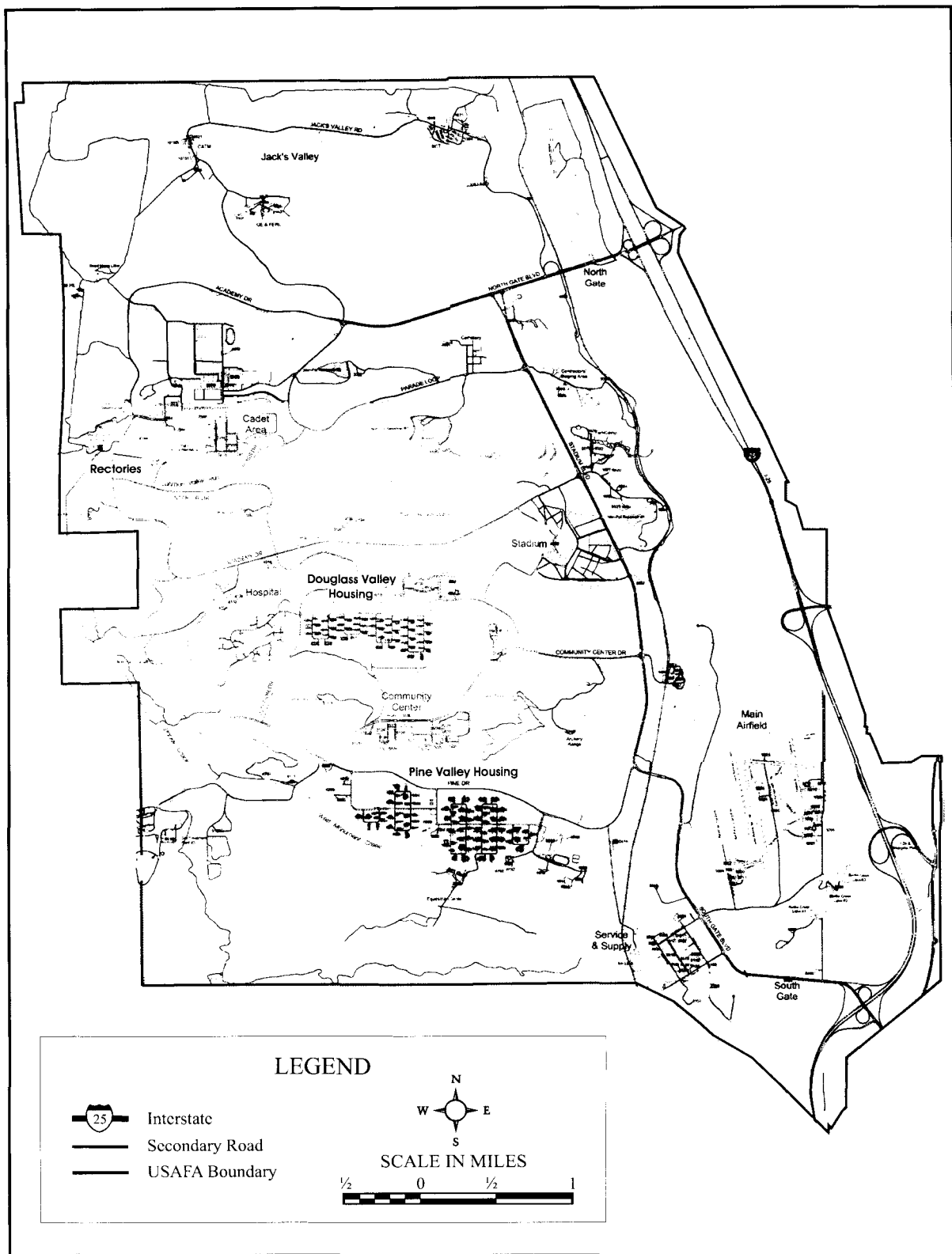


Figure 2. Location of Housing Areas at USAFA

each parcel is provided in Figure 3. A general description and proposed disposition of the units in each parcel are as follows:

Parcel A, Douglass Valley, Main

- 218 single family units and 172 duplexes.
- All rated as below Air Force standards, needing minor maintenance and repair.
- 120 units would be demolished, 270 would be renovated, and 18 new units would be constructed.
- The land, houses, and other improvements would be leased to the Project Owner for 50 years. Eight existing housing units at the corner of Douglass Drive and Interior Drive and the Douglass Valley Elementary School would be excluded from the conveyance.



Parcel B, Douglass Valley SOOs

- 45 single family units.
- All rated as below Air Force standards, needing minor maintenance and repair.
- 1 unit would be demolished and 44 units would be renovated.
- The land, houses, and other improvements would be leased to the Project Owner for 50 years.



Parcel C, Douglass Valley, New

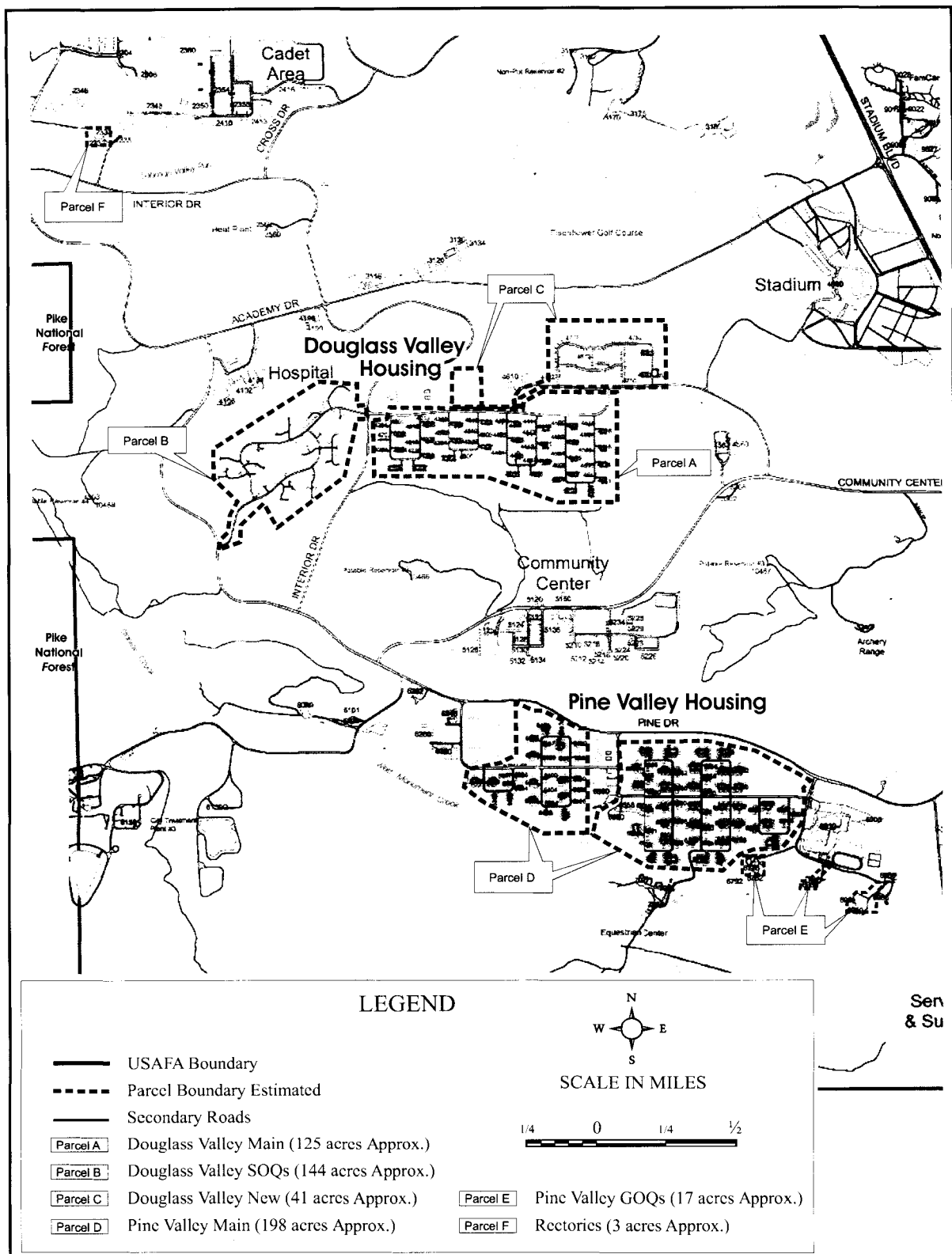
- 4 single family units and 106 duplexes.
- 92 rated as exceeding Air Force standards, 18 rated as below Air Force standards, needing minor maintenance and repair.
- 18 units would be demolished.
- USAFA will also convey 10 temporary lodging facilities (TLFs) that may be used to generate income during the development period, but must be demolished by the end of this period. The land may be used for construction of a housing office and maintenance facility.
- The land, houses, and other improvements would be leased to the Project Owner for 50 years.



Parcel D, Pine Valley, Main

- 64 single family units and 594 duplexes.
- All 594 duplexes and 63 single family homes rated as below Air Force standards, needing minor maintenance and repair; 1 single family home rated as meeting Air Force standards.
- All units would be demolished. Based on analyses summarized in USAFA's housing community profile and housing master plan, these are surplus units for which USAFA has no current or projected long-term need.
- The land would be leased to the Project Owner for 6 years for removal of all houses and other improvements, and initial re-vegetation, after which time the land would revert to the





Government for any further restoration to natural conditions, with no plans at this time for future re-development. Pine Valley Elementary School and Air Academy High School would be excluded from the conveyance.

Parcel E, Pine Valley GOOs

- 3 single family units.
- One rated as below Air Force standards, needing minor maintenance and repair, two rated as meeting Air Force standards.
- One unit (6930) would be demolished and two units may be renovated. The Project Owner may elect to construct a new General Officer's quarter for the Superintendent (currently the Carlton House) and/or the Commandant (currently the Otis House) in lieu of renovating the Carlton House and/or the Otis House. The current draft RFP (3/28/06) lists as the Government's two most important desired community features that the Project Owner renovate Carlton House and Otis House to remain the Superintendent's and Commandant's quarters, respectively, in lieu of new construction of these quarters.
- The location of Unit 6930 is to be considered for construction of a new Dean's House if the Project Owner chooses to renovate the Carlton and/or Otis Houses. If new construction is elected, the new Dean's House shall be sited in close proximity to the Superintendent and Commandant's quarters.
- Carlton House is listed on the National Register of Historic Places (NRHP). The conveyed buildings, on a 1.9-acre piece of land, include the entire complex with the exception of the Garden House and the Hostess/Doll House.
- Otis House was built in the 1930s, but is not listed on the NRHP.
- If the Project Owner elects new construction, the Project Owner will maintain the Carlton and/or Otis House at or above the condition when conveyed until such a time as the new Superintendent's and/or Commandant's quarters is completed. At that time, these two houses would be returned to the Government. Otherwise, the land and houses would be leased to the Project Owner for 50 years.



Parcel F, Rectories

- 2 single family units.
- Both rated as below Air Force standards, needing minor maintenance and repair.
- The land and houses would be leased to the Project Owner for three years until renovation or replacement of units in Parcel B is complete, during which time they will continue to provide housing for their current residents, who will re-locate to renovated units in Parcel B. They would be maintained for occupancy during this period, and then returned to the Government. These two units are counted among those demolished, for accounting purposes (Hume 2006).



The 427 end-state units are referred to as “privatized units,” and are reflected in the following major project components:

Action	Number of Units
Convey	1,208
Demolition	800
New Construction	19
Renovation	316
No Renovation Required	92
Total End-State	427

Existing electrical, natural gas, water, and sewer utility systems are currently owned and operated by the Government, but are under review for possible privatization under a separate business agreement. The current (3/28/06) draft RFP states that they will be conveyed to the Project Owner at the point of demarcation with the exception of the main water lines. The housing Project Owner would be responsible for the capital upgrades, operations, and maintenance of the utility distribution systems within the housing areas, except for the mains.

All bus shelters and playgrounds in all parcels would be conveyed to the Project Owner. The Housing Management Office and Housing Maintenance Shop (collectively called the Housing Management Complex), and the Self-Help Store, all located in Pine Valley, would also be conveyed. The Housing Management Complex will be available to the Project Owner for use throughout the Initial Development Period, but would be demolished prior to the termination of the 7-year lease for Pine Valley, Main area (Parcel D). The 10 TLFs in Parcel C, consisting of five converted duplex units, will also be conveyed. These units may be used to generate income during the development period, but must be demolished prior to the end of this period.

As a result of an overall decrease in USAFA’s residential population, the closure of one or more of the three District 20 public schools (Pine Valley Elementary School, Douglass Valley Elementary School, and Air Academy High School) would be anticipated. USAFA and the school district are evaluating options, of which the most viable appear to be either closing Douglass Valley Elementary School, or closing both elementary schools and converting the high school into a K-12 school.

2.2 Alternative 2 – No Action

Inclusion of the no action alternative is required by CEQ and Air Force regulations for implementing NEPA. Although the no action alternative does not satisfy the purpose and need for the proposed action, it serves as a baseline against which the impacts of the proposed action and alternatives can be evaluated.

Under the no action alternative, USAFA would not implement the proposed action, and would continue to provide for the family housing needs of its personnel through the use of traditional military maintenance and construction procedures. USAFA would continue to obtain funding for family housing through the Congressional authorization and appropriations process. Based on historical trends, it is assumed that the amount of Congressional funding for family housing

would not increase and that the number of units in critical need of renovation would continue to grow. Any major changes to or construction of new housing in the future would require that appropriate NEPA analyses be completed before implementing such actions.

Based on the most recent HRMA, USAFA has a surplus of 765 housing units. It is reasonable to assume that, in the near future, USAFA would demolish these surplus units (most likely the oldest and least adequate units). Should the no action alternative be selected, it is likely that demolition of surplus housing units would eventually occur.

2.3 Alternatives Identified But Not Considered in Detail

Private Sector Reliance

Under this alternative, USAFA would rely solely on the private sector to meet the housing needs of service members who are eligible for family housing at USAFA. USAFA would terminate its family housing programs, dispose of existing family housing units, and convert the land that now supports housing areas to other uses. This alternative would require approval of the Secretary of the Air Force.

The alternative is premised, in part, on the view that competitive marketplace forces would lead to the creation of sufficient affordable, quality family housing. There are several intangible benefits to military personnel and their families living on-post. These include camaraderie and esprit de corps among the military personnel, convenient access to military community services, and a sense of “family” among dependents.

As a practical matter, termination of USAFA family housing would prove difficult. If USAFA housing were to be terminated over a period of years, in the absence of maintenance funding, the existing housing would become unsuitable due to age or necessity of repairs. Residents could then find themselves living in blighted and partially abandoned neighborhoods. If USAFA housing were to be terminated all at once, it is unlikely the private sector could provide the requisite amount of affordable, quality housing, as well as schools, shopping, roads, and other support amenities on short notice.

Renovation of many of the family housing units at USAFA is economically sound. In addition, 92 new units were built in Douglass Valley in 2004, with years of useful life left. Termination of family housing programs would involve abandonment of this considerable investment. In addition, abandonment or adaptation to non-housing use of the NRHP-listed Carlton House would result in either an unacceptable adverse effects to this cultural resource, or would not be practicable or compatible with its original use.

The various consequences of reliance on the private sector and the management difficulties of effecting termination of family housing at USAFA would prove challenging. In light of the aggregate value of family housing units amenable to renovation, termination of a family housing construction and maintenance program would gravely contravene the fiscal responsibilities the Congress expects of the Air Force. For these reasons, this alternative is not reasonable and was not further evaluated in this EA.

Reliance on Family Housing at Other Area Military Bases

Another alternative to maintaining the family housing function at USAFA is to shift residence locations to the military family housing at Schriever AFB, Peterson AFB, and/or Fort Carson. However, (1) the distance to these locations exceeds that which would be associated with consistently safe winter commuting to USAFA, and (2) the longer commutes required would not be responsive to the Secretary of the Air Force's recent memorandum addressing fuel conservation:

The President of the United States asked America to conserve fuel to alleviate the temporary fuel shortages caused by the catastrophic effects of hurricane Katrina. To mitigate the impact, the Deputy Secretary of Defense has directed that we take measures that will conserve fuel. All AF organizations shall consider and implement, as operational and mission demands permit, the following actions to conserve fuel: Minimize all non-essential fuel consumption. ... The emphasis should be on reducing consumption of gasoline, the product with the greatest shortages at this time.

In addition, the two Air Force installations are currently evaluating alternatives for improving their own family housing situation (requirements are for several hundred new homes at each base to meet their own needs). Fort Carson is expecting an influx of up to 10,000 soldiers requiring construction of 250 new family homes, as a result of Defense Base Realignment and Closure Commission decisions in 2005. This alternative was determined to be not reasonable and was not evaluated further in the EA.

2.4 Summary of Environmental Impacts

Potential impacts resulting from the proposed action and the no action alternative, based on the analysis details presented in Section 4 of this EA, are summarized in Table 1.

Table 1. Summary of Impact Analysis Results

Resource	Summary of Impact Analysis Results	
	Proposed Action	No Action
Air Quality	Short-term intermittent impacts, not significant.	Short-term intermittent impacts, not significant.
Soils, Geology, and Topography	No significant impacts.	No significant impacts.
Water Resources	No significant impacts.	No significant impacts.
Biological Resources	No impacts to wildlife or threatened / endangered / sensitive species, or to vegetation in native or semi-native areas. Data gap for potential for impacts to vegetation in developed areas, in terms of fire prevention and insect / disease management.	No impacts to vegetation, wildlife, or threatened / endangered / sensitive species.

Resource	Summary of Impact Analysis Results	
	Proposed Action	No Action
Human Health and Safety	No significant adverse impacts; long-term beneficial impact due to removal of hazardous substances of construction (asbestos and lead-based paint).	Decreased potential for and longer period of time to realize long-term beneficial impact due to removal of hazardous substances of construction (asbestos and lead-based paint).
Solid Waste and Hazardous Materials	Short-term increase followed by a long-term decrease in solid waste generation. Short-term increase in hazardous waste generation leading to a long-term decrease in the potential for residential exposure to hazardous substances used in building materials. No significant adverse impacts.	Short-term increases followed by long-term decreases in waste generation if any construction or demolition projects are undertaken. Decreased potential for long-term health benefit due to removal of hazardous substances in building materials. No significant impacts.
Noise	Intermittent, short-term impacts, not significant.	Intermittent, short-term impacts, not significant.
Cultural Resources	No significant impacts.	No significant impacts.
Land Use	Increased open space from demolition of surplus housing, no significant adverse impacts.	Decreased potential for demolition of surplus housing that would increase open space; no significant impacts.
Traffic and Transportation	Short-term increases in heavy vehicle traffic during transition period, long-term decrease in vehicular traffic associated with decreased residential population. No significant impacts.	Short-term increases in heavy vehicle traffic if any construction or demolition projects are undertaken. Lower potential for long-term decrease in residential vehicular traffic. No significant impacts.
Socioeconomics and Environmental Justice	No impacts to employment and income, housing, or environmental justice. Closure of one or more on-base public schools to be coordinated with school district, not predicted to be a significant impact.	No impacts to employment and income, housing, public schools, or environmental justice.

As noted in this summary table, there is a data gap for the potential for impacts to vegetation in developed areas, in terms of fire prevention and insect/disease management. This data gap is due to the following factors:

- The current draft of the project requirements (Draft RFP dated 3/28/06) states that the developer must comply with USAFA's *Integrated Natural Resources Management Plan* only in native and semi-native areas; and
- Specific developers' proposals have not yet been submitted to the Air Force, nor has the final lease been negotiated, which would define any other commitments or restrictions regarding management of this resource.

This data gap will be addressed when the lease is finalized, with the potential for impacts to vegetation in non-native areas able to be assessed at that time.

There would be no significant cumulative impacts.

SECTION 3. AFFECTED ENVIRONMENT

This section describes the existing condition of resources at USAFA, laying the groundwork for the discussions in Section 4 of the potential for environmental impacts to each area.

3.1 Air Quality

This section discusses the climate and meteorology of the area, air quality standards, and existing air pollutant sources.

3.1.1 Climate and Meteorology

USAFA is located near the Front Range of the Rocky Mountains, which results in a moderate semi-arid climate. The average July temperature is 70° F and the average January temperature is 28° F. The area is subject to thunderstorms and heavy rainfall, which primarily occur from May through August. Mean precipitation is about 17 inches per year. Most rain occurs from March through September, with peak rainfall occurring in August (NWS 2005). The most rainfall (at the Colorado Springs Airport) in a 24-hour period was 3.98 inches in August 1999. USAFA gets slightly more snow in the winter than the surrounding region due to its proximity to the Palmer Divide. Snowmelt in the spring occasionally produces flooding. Relative humidity ranges from about 55% in the early morning to 35% in the early afternoon. Prevailing winds are predominantly from the west (southwest in summer and northwest in winter). Wind speeds usually range from seven to ten knots (8 to 12 miles per hour), with the highest speeds occurring in the spring and the lowest in late summer and early fall.

3.1.2 Air Quality Standards

The National Ambient Air Quality Standards (NAAQS), established by the U.S. Environmental Protection Agency (USEPA) and adopted by the Colorado Department of Public Health and Environment (CDPHE), define the maximum allowable concentrations of pollutants that may be reached but not exceeded within a given time period. These standards were selected to protect human health with a reasonable margin of safety. Section 110 of the *Clean Air Act* (CAA) requires states to develop air pollution regulations and control strategies to ensure that state air quality meets the NAAQS established by USEPA. These ambient standards are established under Section 109 of the CAA, and they currently address six criteria pollutants: carbon monoxide (CO), nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide. Particulate matter has been further defined by size. There are standards for particulate matter smaller than 10 microns in diameter (PM₁₀) and smaller than 2.5 microns in diameter (PM_{2.5}). Each state must submit these regulations and control strategies for approval and incorporation into a Federally enforceable State Implementation Plan (SIP). Exceeding the concentration levels within a given time period is a violation and constitutes nonattainment of the pollutant standard.

Stationary sources of emissions are categorized as major or minor. A major source emits, or has the potential to emit, 100 tons per year of any air pollutant (40 CFR 52.21, 5 Colorado Code of Regulations (CCR) 1001, Regulation 3, Part A, Section I.B.23.b). A minor source emits or has the potential to emit less than 100 tons per year of any pollutant. Under Title V of the CAA, a

major source must obtain an operating permit. Minor sources do not need an operating permit; however, if they emit two tons per year or more of a pollutant, they are required to obtain an Air Pollutant Emissions Notice (APEN), sometimes referred to as a construction permit.

Hazardous air pollutants (HAP) are regulated under 40 CFR 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), and 40 CFR 63, NESHAP for Source Categories. A major source, defined as one emitting, or having the potential to emit, 10 tons per year of any single HAP or 25 tons per year total HAPs, requires a permit, and as specified in 40 CFR 63, the implementation of maximum achievable control technology. A minor source is defined as one emitting, or having the potential to emit, less than 10 tons per year of any single HAP or 25 tons per year total HAPs. Minor sources of HAPs whose emissions exceed the threshold defined in CCR 1001, Regulation 3, Appendix A are required to obtain an APEN; this threshold ranges from 50 to 5,000 pounds per year depending on the elevation of the release point above ground level, the distance from the source to the property boundary, the emission point as defined in Section II.B.4 of the regulation (a single point or a composite of multiple points), and the type of HAP (as classified in Appendix B of the regulation).

3.1.3 Air Pollutant Sources

Particulate matter (PM₁₀ and PM_{2.5}) is generated during ground-disturbing activities and during combustion. El Paso County requires an air quality permit for fugitive particulate emissions from disturbed ground of more than one acre in size. The permit includes requirements to limit fugitive dust through best management practices, outlined in the El Paso County Land Development Code, Section 51.

If this ground is disturbed for more than 6 months, and is 25 acres or more in size, a Colorado APEN is also required. The APEN would require specific measures to control fugitive dust to the extent technically feasible and economically reasonable. Specific measures are required for onsite unpaved roads (watering, chemical stabilizers, limiting vehicle speeds, or gravelling), controlling dust from disturbed areas (watering, chemical stabilizers, limiting vehicle speeds, revegetation, furrows, wind breaks, temporary compaction, or synthetic or natural covering, such as netting or mulching), and preventing mud and dirt from being carried out onto paved roads (gravel entryways, washing vehicle wheels, or street cleaning).

Limits for other criteria pollutants apply only to permanent stationary sources installed during construction. These limits are specified for attainment or nonattainment areas (CCR Title 5, Chapter 1001, Regulation 3, Part A, II.B.62.a) and are two tons per year of any pollutant in an attainment area.

3.1.4 Regional Air Quality

USAFA is located in the Colorado Springs Metropolitan Area, which lies within the San Isabel Intrastate Air Quality Control Region (AQCR). The region is currently in attainment for all criteria pollutants, but has only been in attainment for CO since 1993 (CDPHE 2003). As part of the redesignation as an attainment area, the Colorado Springs area is under a maintenance plan (last revised in 2003) until 2015 to demonstrate compliance with the CO standard. Under this

maintenance plan, implemented under a SIP and approved by the USEPA, the Colorado Springs maintenance area has a mobile sources emissions budget of 270 tons per day of CO. The Colorado Springs Metropolitan Area is in maintenance for CO, but in attainment for other criteria pollutants; the conformity with the SIP is focused on CO.

According to the latest monitoring and trends report prepared by the Pikes Peak Area Council of Governments (PPACG 2004), emissions of CO have declined since violations of the standard in 1988. Eight-hour average monitoring results are 4 ppm or less (compared to the eight-hour standard of 9.5 ppm). Emissions of other criteria pollutants are also well below standards, with the exception of ozone. The three-year average of the annual 4th-highest eight-hour average ozone level (this is the value used to determined compliance with standard) has remained at about 85% of the standard (0.088 ppm) (CDPHE 2006).

USAFA completed an Air Emissions Inventory for calendar year 2004 (USAF 2005a). The installation-wide criteria pollutant totals (actual and potential emissions) are shown in Table 2. As defined in 40 CFR 52.21, the potential to emit is the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. For purposes of potential to emit calculations, operating hours for emergency equipment (such as emergency generators) are limited to 500 hours per year by the USEPA. USAFA has a synthetic minor permit from the Colorado Air Pollution Control Division. USAFA is a minor stationary source, as the potential to emit criteria pollutants is less than 100 tons per year. The base is not subject to Prevention of Significant Deterioration (PSD) review requirements of 40 CFR 52.21 and CCR Title 5, Chapter 1001, Regulation 3, Part B, Section IV.D.3 because the actual or potential emissions of any criteria pollutant does not exceed 250 tons per year.

Table 2. Installation-Wide 2004 Air Pollutant Emissions at USAFA

	Emissions (tons per year)					
	PM ₁₀	NO _x ^a	SO _x ^a	CO	VOCs ^a	HAPs
Stationary Sources, Actual	0.27	3.54	0.07	2.95	0.26	0.08
Stationary Sources, Potential	5.71	70.41	94.86	54.43	74.16	11.88

^aNO_x = nitrogen oxides, SO_x = sulfur oxides, VOCs = volatile organic carbon compounds

Source: USAF 2005a.

The main stationary source of emissions at USAFA is the heat plant, which uses fuel oil or natural gas as a source of fuel.

USAFA is a minor source of HAPs, with actual emissions of 0.08 tons per year and the potential to emit 11.88 tons per year. HAPs emissions are below the thresholds for specific requirements under 40 CFR 61 and 63 for source categories.

3.2 Soils, Geology, and Topography

Geological resources discussed in this section include physical features of the earth such as geology (surface and subsurface features), topography, and soils.

3.2.1 Geology and Topography

The parcels and their vicinity are situated in the Southern Rocky Mountain Physiographic Province, an area of mountains and foothills dissected by numerous streams. The Rampart Range is located near the west edge of USAFA.

The Rampart Range Fault, a high-angle reverse fault, separates the harder granites of the Rampart Range from the softer sedimentary rocks of the foothills and plains. A dramatic change in slope occurs along the western edge of USAFA property. The predominant bedrock east of the Rampart Range Fault occurs as Dawson Arkose, and is made up of sandstones, siltstones, and claystones. Downcutting and alluviation in these sedimentary rocks has produced gravel-covered bedrock surfaces. Narrow, finger-like mesas and broad valleys are remnants of the eastward trending pediments. The ridges and valleys terminate at Monument Creek. All of the areas impacted by the proposed action are underlain by the Dawson Arkose formation.

There are no major active faults in the Colorado Springs vicinity. Major faults are located about 80 to 100 miles from the site. The Northern Sangro de Cristo Fault, with a characteristic magnitude (an expected magnitude of earthquake based on fault geology and stress in the fault) of 7.5, is located about 70 miles southwest of the site. The Southern Sawatch Range Fault, with a characteristic magnitude of 7.2, is located about 80 miles southwest of the site. The Cheraw Fault, with a characteristic magnitude of 7.1, is located about 110 miles southeast of the site (USGS 2002, USGS 2004). The U.S. Geological Survey (USGS) calculates the probability of ground motion from faults and earthquake events in an area, compared to the motion of an object falling due to gravity. There is a 10% chance that a peak acceleration of 3.5% of gravity would be expected in 50 years (USGS 2003). This would approximately equal a value of V to VI on the Modified Mercalli Scale for earthquake intensity. Earthquakes of this magnitude would typically cause breakage of windows or plaster or other slight damage. On average, this would equal magnitudes in the range of 4.0 to 4.4 on the Richter Scale (this is variable depending on the proximity of the earthquake to the site). Since 1973, there have been 30 earthquakes recorded within 160 kilometers (100 miles) of the site, with magnitudes ranging from 2.1 to 4.5 (USGS 2005a).

Elevation on the land to be leased for the MFHPI varies from about 6,500 feet to about 7,000 feet above mean sea level. These areas slope to the southeast at a gradient of 2 to 10%. Drainage is generally to the southeast in the Pine Valley housing area. Douglass Valley is drained by three intermittent streams; drainage is to the northeast in the southern half of the valley, to the southeast in the northwest part of the housing area, and to the east through the center of the valley. Drainage is to the east in the Rectories area by an intermittent stream, Lehman Run.

3.2.2 Soils

Soils on the parcels include six series of gravelly and sandy loams (USDA 1981):

- Jarre gravelly sandy loam, 1-8% slopes on alluvial fans and terraces
- Jarre-Tecolote complex, 8-65% slopes on alluvial fans
- Kettle gravelly loamy sand, 3-8% slopes on uplands

- Kettle gravelly loamy sand, 8-40% slopes on uplands
- Pring coarse sandy loam, 3-8% slopes on valley side slopes and uplands
- Tomah-Crowfoot loamy sands, 3-8% slopes on alluvial fans and hills and ridges of uplands

These soils occur on valleys and side slopes on slight to steep gradients. In general, the hazard of erosion varies from slight to moderate on these soils. The combination of intense summer rainstorms, steep topography with relatively narrow valleys, and coarse soil particle size creates moderate to high erosion potential on most areas of USAFA. Although the soil survey (USDA 1981) indicates that flooding is not generally associated with these soil series, USAFA personnel reported recurring flooding (as recent as 1999) along creeks and tributaries, including Monument Creek west of the Pine Valley housing development, with flooding affecting the basements of some of those Pine Valley houses and some of the homes that were subsequently demolished and replaced in 2004 in Douglass Valley (Reisinger 2005, Hume 2005). These soils have slight to moderate limits for construction of dwellings due to slope.

As discussed in Section 3.1.3, El Paso County requires a grading permit for fugitive particulate emissions and waterborne sediments from disturbed ground of more than one acre in size. The permit includes requirements to limit soil erosion and fugitive dust through best management practices, outlined in the El Paso County Land Development Code, Section 51. Erosion control requirements are discussed in Section 3.1.3. Additionally, if a proposed project is anticipated to disturb 25 acres or more for six months or longer, a Colorado APEN is required. Measures to control water erosion (vegetative controls such as maintaining as much vegetation as possible, and structural controls such as sediment traps and basins and ground cover) are also included within permit requirements.

The El Paso County Land Development Code also requires a final site plan for stabilizing steep slopes and limiting storm water runoff from completed construction. Additional requirements for runoff and sediment discharge are discussed in Section 3.3.2.

3.3 Water Resources

The hydrologic cycle results in the transport of water into various media such as the air, the ground surface, and subsurface. Natural and human-induced factors determine the quality of water resources. Water resources discussed in this section include groundwater, surface water (including storm water runoff), and floodplains.

3.3.1 Groundwater

The Denver Aquifer system is to the north and east of USAFA (USGS 1995). Aquifers in the vicinity of the parcels to be leased are associated with perennial streams (such as West Monument Creek). Groundwater is not used as a source of drinking water at USAFA. Recent exploratory borings determined that groundwater in the vicinity of Douglass Valley is about 10 to 12 feet below the ground surface, and groundwater in the vicinity of Pine Valley was determined to be about 23 to 26 feet below the ground surface (USAF 2005b). USGS wells in the northwest part of Pine Valley housing indicated groundwater depths of 20 to 26 feet in 1987 (USGS 2005b). The recent geotechnical study (USAF 2005b) did not determine groundwater

depths in the vicinity of the Rectories, but USGS data indicate groundwater depths of 8 to 9 feet (USGS 2005b).

3.3.2 Surface Water

The project area lies within the Fountain Creek Watershed (U.S. Geological Survey (USGS) hydrologic unit catalog 11020003), which drains into the Arkansas River (located about 35 miles to the south of the project area). This watershed consists of several perennial and intermittent streams, including Fountain Creek and Monument Creek. West Monument Creek (a perennial stream) and an unnamed intermittent stream drain the Pine Valley area. Generally, the stream is about 200 to 300 feet south of the housing units, but a few units are 80 to 90 feet from the stream. These streams flow into Monument Creek near the eastern edge of USAFA. The Douglass Valley area is drained by Douglass Valley Stream, which drains into Monument Creek. The houses are located about 350 to 400 feet from the stream. Monument Creek drains into Fountain Creek about 10 miles south of USAFA (USGS 2005c).

Under Section 402 of the *Clean Water Act*, discharge of pollutants into waters of the U.S. requires a National Pollutant Discharge Elimination System (NPDES) permit from the USEPA. The USEPA requires NPDES Construction General Permit coverage for storm water discharges from construction projects that would result in the disturbance or re-disturbance of one or more acres. These permits require a storm water pollution prevention plan and best management practices specific to the proposed construction activity. Best management practices must be implemented to control stormwater runoff and sedimentation to preconstruction levels. West Monument Creek and other perennial and intermittent streams in the impacted areas are waters of the U.S. USAFA has an existing NPDES permit that would cover the proposed demolition and construction activities.

3.3.3 Floodplains

Floodplains have been delineated along West Monument Creek at the southern edge of the Pine Valley housing area. None of the Pine Valley housing units are within the floodplain. Generally, the housing units are 200 feet or more from the 100-year floodplain, but a few units are about 70 feet from the floodplain. About 0.1 acre of the 100-year floodplain is within the parcel to be transferred. A floodplain has not been delineated for Douglass Valley Stream. Housing units are generally 350 to 400 feet from the stream. The Rectories units are about 600 feet from Lehman Run, and are not within the floodplain.

3.3.4 Wetlands

Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (Federal Interagency Committee for Wetland Delineation 1989). Wetlands are diverse ecosystems that provide natural flood control by storing spring runoff and heavy summer rains, replenish groundwater supplies, remove water pollutants, and filter and use nutrients. They also

provide habitat for many plant and animal species, including economically valuable waterfowl and 45% of the nation's endangered species.

The U.S. Army Corps of Engineers (USACE) regulates those wetlands that are considered waters of the U.S. under Section 404 of the *Clean Water Act* and Executive Order 11990 (Protection of Wetlands). Waters of the U.S. include navigable waters and their tributaries; all waters used, or that could be used, for interstate commerce; or waters used by migratory bird or threatened and endangered species. Waters of the U.S. include perennial and intermittent streams and their tributaries, lakes, and various types of wetlands meeting the above definitions or connected to the above-listed features (40 CFR 122.2, 33 CFR 328). A wetland is not considered to be under USACE jurisdiction (and therefore, waters of the U.S.) based on its use and potential use by migratory bird species alone (68 *Federal Register* 10).

A National Wetlands Inventory (NWI) was completed for USAFA in 1993. The accuracy of this survey was questionable because it was mostly based on photo interpretation and little ground-truthing (field verification of vegetation and hydrology). In 2002, a “non-jurisdictional” wetlands delineation was completed for USAFA using aerial photographs, the NWI maps, existing data on project-specific jurisdictional delineations, and extensive field surveys and ground-truthing of site vegetation and hydrology. USAFA supports both riverine (wetlands within the channel of rivers, streams, and excavated drainage ditches) and palustrine (nontidal wetlands consisting of non-flowing water dominated by trees, shrubs, and emergent plants) wetland habitats. Of the 313 wetlands and other waters of the U.S. identified on base, 90 areas are in riverine systems and 223 areas are within the palustrine system. A combined total of 213 acres of wetland and other waters of the U.S. were identified. Monument Creek, the largest perennial stream on USAFA, was mapped as palustrine habitat because wetland vegetation occupies both banks and low islands within the stream, and typically covers a greater width than the stream itself.

Some of the wetlands within the channel of West Monument Creek are along the southern edge of the Pine Valley housing area. Generally, these are 200 or more feet from the housing areas, but in some areas, houses are within 100 feet of wetlands. Some of the wetlands are immediately adjacent to Parcel D at Pine Valley. Wetlands are 200 feet or more from housing units in Douglass Valley. About 3 acres of wetlands are included within the parcels to be conveyed. The closest wetlands to the Rectories are about 500 feet to the south.

3.4 Biological Resources

Biological resources consist of an area’s vegetation and wildlife, and the habitats (including wetlands) in which they occur. This section is divided into discussions of vegetation, wildlife, and threatened, endangered, and sensitive species.

3.4.1 Vegetation

Vegetation within the Douglass Valley and Pine Valley developments and around the two Rectories houses includes manicured lawns (Kentucky bluegrass), residential landscaping plants and ornamental shrubs and trees, and scattered conifer stands in sections where the units are

more widely spaced. Forest and grassland areas abut the lands proposed for transfer (USAF 2003).

Douglass Valley. Upland forest surrounds most of the Douglass Valley development. There are also two small areas of upland grassland-shrub/scrub mosaic, one each north of the eastern-most and western-most sections of the development; and three adjacent/nearby areas of upland grasslands, on the perimeter of the northwest corner, north of the west-central site boundary, and just off the southeast corner of the developed area.

Pine Valley. Upland grassland is found adjacent to the northern and western boundaries of the Pine Valley development, with at least three additional areas adjacent to the eastern section of the development. A riparian shrub/tree/forb system extends across the western half of the southern border of the development, and upland forest frames the rest of the eastern section of Pine Valley. The graveled areas and manicured lawn around Carlton House underlie dozens of mature conifers, with the undeveloped lands to the east consisting of upland forest. The manicured lawn of Otis House is similarly populated with tall conifers, though with slightly greater spacing. Areas of upland forest lie adjacent to the Otis House grounds, with upland grasslands approaching quite near, particularly to the east. Building 6930 has grasslands to the north and is shaded by tall conifers found in the upland forest to the south.

Rectories. The landscaped lawns surrounding the two Rectories houses are located in an upland grassland area.

The Colorado Natural Heritage Program (CNHP) of Colorado State University conducted a noxious weed inventory of USAFA (CNHP 2003). Fourteen species of noxious weeds currently listed within the State of Colorado's three categories were identified:

- A. State Noxious Weeds (problem weeds in county or recommended for management through public testimony): bull thistle, Russian olive, Scotch thistle, and tamarisk.
- B. Top Ten Prioritized Weed Species (the most widespread and cause the greatest economic impact for the State): diffuse knapweed, spotted knapweed, Canada thistle, hoary cress, musk thistle, field bindweed, yellow toadflax, and leafy spurge.
- C. Not Yet Widespread (may not be present or may not be causing great economic impact, but containment and eradication are encouraged so they do not become well-established): Fuller's teasel and common St. Johnswort.

Wetland habitats occur on more than 200 acres of land at USAFA, as described in Section 3.3.4.

3.4.2 Wildlife

USAFA is home to 247 bird species and 70 species of mammals, and numerous reptiles and amphibians (USAF 2003). The site's high biodiversity is a result of topography, latitude, elevation, the presence of riparian habitat, and adjacency to the Pike National Forest (USAF 2003). Within the housing areas, wildlife presence of note includes small mammals (such as bats,

squirrels, skunks, raccoons, mice, and foxes) as well as occasional black bear visits (attracted by trash) and mountain lion sightings. Vehicle drivers on USAFA roads may encounter deer or elk.

West Monument Creek, flowing east along the southern border of the Pine Valley development, contains reproducing populations of brook trout (USAF 2003). Native nongame fish that may be found in the tributaries to Monument Creek near the housing areas (West Monument Creek, Douglass Valley Stream, and Lehman Run) include the white sucker, longnose sucker, longnose dace, creek chub, brook stickleback, and fathead minnow (USAF 2003).

3.4.3 Threatened, Endangered, and Sensitive Species

The Preble's meadow jumping mouse (PMJM) (*Zapus hudsonius preblei*) is listed as a threatened species under the *Endangered Species Act*, largely due to habitat loss and habitat fragmentation. It is a small brown rodent with a conspicuous dark dorsal band, large well-developed hind legs and feet, and an extremely long tail. PMJM are most often found in dense, herbaceous riparian vegetation (CNHP 1999). In Colorado, the subspecies is currently documented in seven counties with one of the largest and most stable populations occurring in the Monument Creek watershed at USAFA (USAF 2003). The U.S. Fish and Wildlife Service proposed to delist the PMJM on February 2, 2005 (70 *Federal Register* 21), an action which would remove the PMJM from the list of threatened species and eliminate all of its currently designated critical habitat; a final rule has not been published as of the date of this EA.

Figures 4 and 5 show likely PMJM habitat near and within the Pine Valley and Douglass Valley housing areas, respectively. These habitat boundaries are based on a distance of 100 meters from the 100-year floodplain, as recommended in USAFA's Conservation Plan for the species (CNHP 1999) and required in the U.S. Fish and Wildlife Service's Biological Opinion on the Conservation Plan (FWS 2000).

Other threatened or endangered candidate or listed species that use USAFA as migrants or have potential to occur there include the bald eagle (*Haliaeetus leucocephalus*), peregrine falcon (*Falco peregrinus*), Mexican spotted owl (*Strix occidentalis lucida*), Arkansas darter (*Etheostoma cragini*), Ute ladies' tresses (*Spiranthes divuvialis*), mountain plover (*Charadrius montanus*), and Colorado butterfly weed (*Gaura neomexicana* ssp. *coloradensis*).

Just east of the Pine Valley housing area, a small patch of remnant midgrass prairie provides high-quality habitat for the Merriam's shrew (*Sorex merriami*), a rare mammal in Colorado (USAF 2003).

3.5 Human Health and Safety

A safe environment is one in which there is little or no potential for death, severe injury or illness, or property damage. The parcels proposed for transfer under the MFHPI are residential areas, and thus the primary public safety concern is traffic incidents in residential areas. Presently, USAFA personnel mitigate these risks through strict surveillance of posted speed limits. Additionally, many housing yards and playgrounds are fenced to prevent easy access to roadways by children.

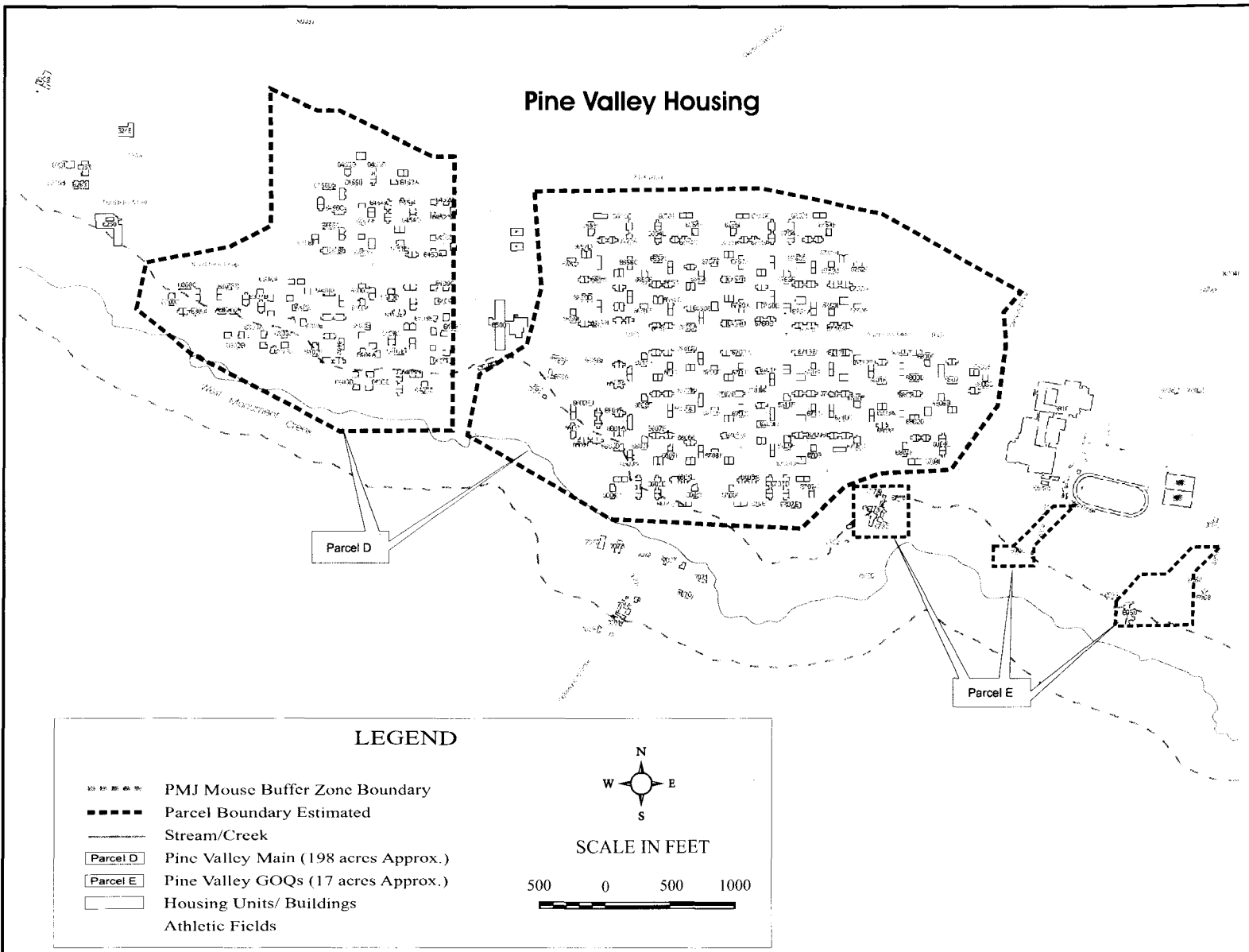
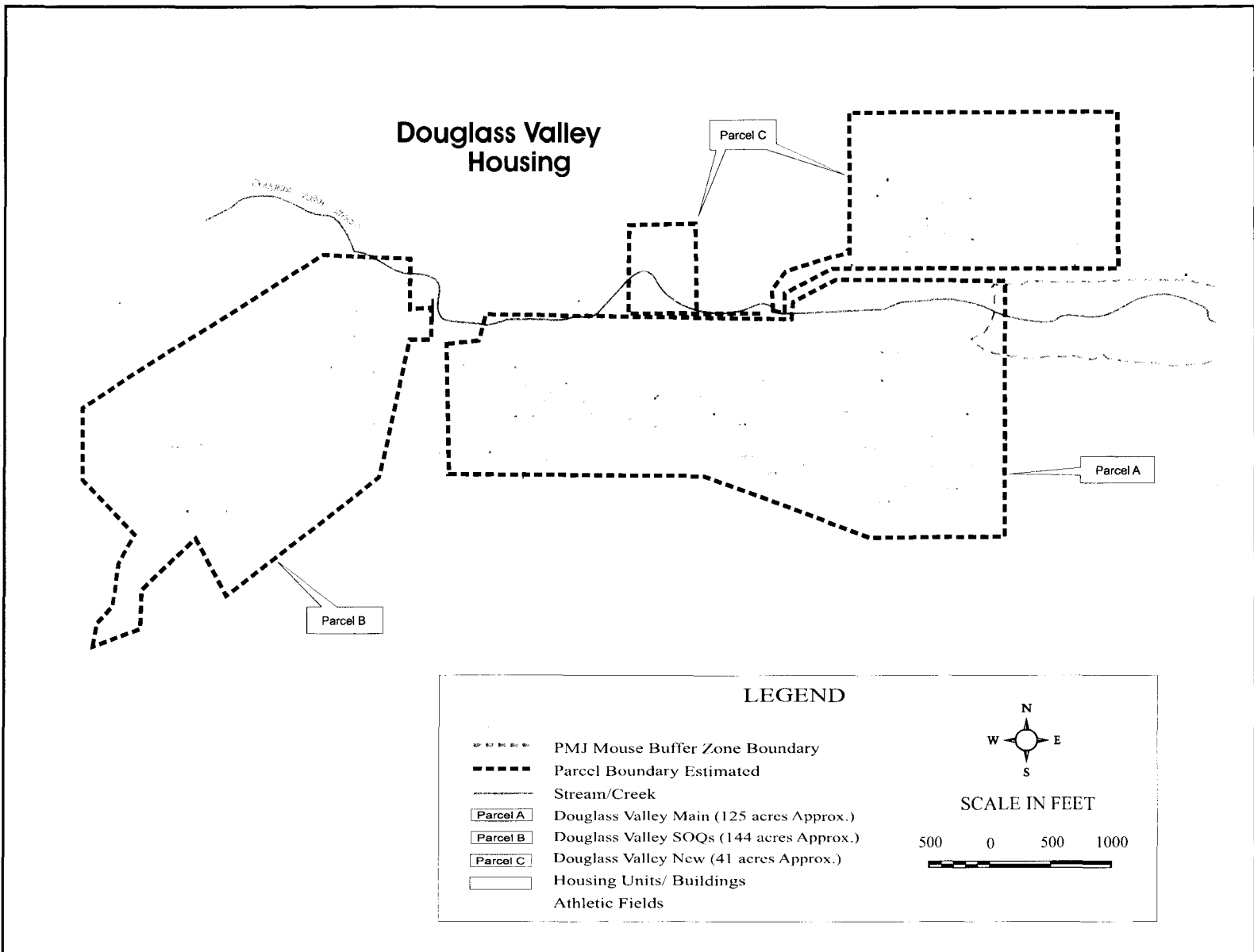


Figure 4. PMJM Habitat Relative to Pine Valley Housing

Figure 5. PMJM Habitat Near Douglass Valley Housing Area



Other potential safety risks in the proposed areas are those due to hazardous materials used in residential areas. Pesticides are applied to landscaped areas within the subject parcels. Additionally, asbestos and lead-based paint materials are present in the subject parcels due to the dates of construction of many of the housing units; Section 3.6.2 contains additional information on the presence of these materials. Children are more sensitive to some environmental effects than adults, including those resulting from exposure to the hazards identified above.

3.6 Solid Waste and Hazardous Materials

3.6.1 Solid Waste

Solid wastes include all waste materials that are neither hazardous nor toxic, and which are normally disposed of by landfilling or incineration, or are recycled or recovered. In accordance with Air Force Instruction (AFI) 32-7042, Solid and Hazardous Waste Compliance and AFI 32-7080, Pollution Prevention Program, USAFA strives to recycle as much of their solid waste stream as possible. The management of solid (non-hazardous) waste at USAFA includes the collection and disposal of solid wastes and recyclable material by contract. Recyclable items include cans, newspapers, plastic, office paper, and cardboard. There are no active landfills on USAFA property; solid waste is taken by a contractor to the Colorado Springs Landfill.

3.6.2 Hazardous Materials and Wastes and Petroleum

Hazardous materials are substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may present a substantial danger to public health or the environment if released. When improperly stored, transported, or otherwise managed, hazardous materials can significantly affect human health and safety, and the environment. These materials are defined within various laws to have specific meanings. For this EA, substances identified as hazardous by the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA), as well as petroleum products, are considered hazardous materials.

The use or a release of a hazardous material usually results in the generation of a hazardous waste. Examples of hazardous wastes include contaminated fuels and spent or off-specification solvents, paints, and thinners. Hazardous wastes, as defined for this document, include those substances identified by the *Resource Conservation and Recovery Act* (RCRA). Special wastes include wastes that require special handling (e.g., used oil, dewatered sludge), and are also tracked and managed by USAFA. Hazardous waste management consists of the collection, storage, and transportation of hazardous wastes (as defined by RCRA). Hazardous wastes are managed by Civil Engineering and processed for ultimate disposal through the Defense Reutilization and Marketing Office.

Hazardous wastes and toxic materials in the housing areas are restricted largely to household building materials and typical household chemicals. The use and storage of hazardous materials and wastes including petroleum and oils are not considered a concern at MFHPI parcels at USAFA. As would be expected in any residential area, petroleum staining in areas where vehicles are parked was observed during the Phase I environmental site assessment /

environmental baseline survey (USAF 2005c). These stains were not significant and were not the result of large quantity releases of petroleum products.

There are no Air Force Installation Restoration Program (IRP) sites on or adjacent to the USAFA subject parcels. USAFA generates hazardous waste in industrial operations, but those operations are not located on or adjacent to the subject parcels. Pesticides are being applied on all USAFA parcels consistent with residential use. Large-scale pesticide application has not occurred on the USAFA subject parcels.

Underground Storage Tanks. There was no evidence of underground storage tanks (UST) observed on any of the USAFA parcels during the site reconnaissance and no evidence of any USTs identified on the parcels during the records review. USTs were identified at the Army Air Force Exchange Service (AAFES) station, located between Pine Valley and Douglass Valley. During removal of USTs at this location in the 1990s, a leaking UST was identified. USAFA is currently conducting quarterly groundwater monitoring at two locations to monitor the extent of contamination resulting from this leaking UST. However, since potable water is supplied by Colorado Springs Utilities and no groundwater wells are located in the area, mitigation of the leaking UST was not required.

Asbestos. There are no indications that any asbestos-containing materials (ACM) were ever stored or disposed on the parcels; however, ACMs may be found in wiring, adhesive and caulking, original roofing and felt, crawlspace liners, and pipe insulation. All units within the Douglass Valley, Rectories, and Pine Valley MFHPI project area, with the exception of Parcel C's 92 Douglass Valley new housing units, were built prior to 1980 and most likely contain ACMs.

Lead-Based Paint (LBP). LBP was used on interior and exterior surfaces in buildings constructed prior to 1978. All units within the Douglass Valley and Pine Valley MFHPI project area, with the exception of Parcel C's 92 Douglass Valley new housing units, were built prior to 1978 and most likely contain LBP. An LBP survey was conducted for family housing at USAFA. LBP was found in multiple housing units proposed for conveyance under the MFHPI on interior and exterior surfaces (USAF 2002).

Polychlorinated Biphenyls (PCBs). PCBs were used in the United States from 1929 to 1979 and are regulated by the *Toxic Substances Control Act* and, in the absence of a release, are not regulated by CERCLA. The provisions of CERCLA do apply if there is a release of PCBs. No known PCB releases are recorded. Small transformers are scattered throughout each of the USAFA subject parcels and the majority of residential structures have some fluorescent lighting. Although many have been retrofitted with non-PCB-ballasts, there remains the potential that some lighting ballasts may contain PCB materials. Personnel interviews indicated that all other known sources of PCBs on USAFA have been removed.

Radon. Radon is a naturally occurring odorless, colorless gas with radioactive qualities that may be harmful to human health. Due to the location of USAFA and the geology of the eastern slope of the Rocky Mountains, radon is commonly detected at USAFA facilities. Military Family Housing radon mitigation and testing reports were completed, with sampling results for subject

parcels both below and above the USEPA action level of 4 picocuries per liter (USAF 2005d). Mitigation systems were installed and post mitigation testing results showed lowered radon concentrations to below the Federal action level for radon exposure.

Pesticides. Pesticides are being applied on all USAFA parcels consistent with residential use. Herbicides are applied to lawns and other vegetative areas, and insecticides and rodenticides are applied as required.

3.7 Noise

Noise is sound that injures, annoys, interrupts, or interferes with normal activities or otherwise diminishes the quality of the environment. Noise can be described as intermittent or continuous, steady or impulsive, stationary or transient.

The parcels proposed for transfer under the MFHPI lie within the boundary of USAFA. The parcels are presently occupied by residential structures; industrial operations are minimized in the subject areas. As such, noise levels are consistent with residential areas. Noise in the area is primarily intermittent, impulsive, and transient, and is most closely associated with traffic. The Douglass Valley and Pine Valley areas are largely located apart from major thoroughfares. The Rectories units are located nearer a primary traffic artery feeding the student area of USAFA, and noise associated with traffic may be slightly higher than in the other parcels.

The 10th Air Base Wing conducts flight training activities at USAFA. As such, noise associated with aircraft operation may be heard. USAFA attempts to restrict flying operations, which include departures and landings, to daylight hours only. Flight pattern altitudes and runway approach angles have been adjusted over the years in an effort to reduce noise impacts while maintaining safe operations (USAF 2005e). The Pine Valley housing area is the closest to the active USAFA runway, with its eastern edge located approximately 1.4 miles to the west of the north/south runway. The Douglass Valley housing area is located approximately 2.4 miles to the northwest of the runway. The Rectories units are located approximately 4.5 miles to the northwest of the runway.

Other noise sources in the area are typically temporary and associated with construction activities. These noises are commonly limited to the daytime hours.

3.8 Cultural Resources

Cultural resources are archaeological, historical, and Native American items, places, or events considered important to a culture, community, tradition, religion, or science. Archaeological and historic resources are locations where human activity measurably altered the earth or left deposits of physical or biological remains. Prehistoric examples include arrowheads, rock scatterings, and village remains, whereas historic resources generally include campsites, roads, fences, homesteads, trails, and battlegrounds. Architectural examples of historic resources include bridges, buildings, canals, and other structures of historic or aesthetic value. Native American resources can include tribal burial grounds, habitations, religious ceremonial areas or instruments, or anything considered essential for the persistence of their traditional culture.

A Cultural Resources Survey was completed in August 1996. Seven Euro-American/Early 20th Century findings and five Prehistoric American Indian findings were discovered and/or verified within proximity of housing parcels relevant to the MFHPI project. None of these sites are eligible for listing on the NRHP (Roupe 2005).

One area located northeast of the Rectories, Sijan Hall, in the Cadet Area, was placed on the NRHP as a National Historic Landmark on April 1, 2004. A programmatic agreement exists between the State Historic Preservation Officer and the National Park Service for the care of the landmark (USAF 2005f).

One specific GOQ in Pine Valley housing (Parcel E) is listed on the NRHP. The Carlton House is a 10,846-square-foot residence built in 1931, and is an excellent example of the Spanish Colonial Revival style. In 1935, after the completion of the initial one-story building, a second floor and three smaller houses were added, for guests and staff: the Tea House, the Garden House, and the Hostess House. Although the house was originally built as a private residence, it was used as a country club and a high school over time and, since 1958, has been home to USAFA superintendents. The surrounding grounds currently encompass 9 acres. In 1990, the main house qualified as a historical building on the NRHP for the exterior and some interior spaces, including the grand room, foyer, and two dining rooms (USAF 1999). The house has had many upgrades, but is in need of rehabilitation. The exterior stucco has started to separate from the walls causing cracks to appear and degrading the overall appearance.

The Otis House, another GOQ in Pine Valley Parcel E, was completed in 1930. It has a similar Spanish Colonial Revival style with a stucco exterior and clay tile roof. Unlike the Carlton House complex of many buildings, the Otis House is a single unit: it is an 11,553-square-foot home with a two-car garage. The Otis House is not listed on the NRHP.

Viewsheds are important to the cultural integrity and the original master planning of USAFA. The two housing areas were developed in valleys, and are not visible from most locations at USAFA. Similarly, the views from the housing areas outward do not reveal other areas of USAFA. Views from the housing areas are toward the mountains and Colorado Springs.

3.9 Land Use

Land use consists of natural conditions or human-modified activities occurring at a particular location. Land use categories include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed use areas. Management plans and zoning regulations determine the type and extent of land use allowable in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

Sixteen land use categories are defined for USAFA, dominated by open space. The majority of land at USAFA is natural preserved open space. The Cadet Area, which groups the academic, military, living, and administrative functions for the education and training of the cadets, is positioned on the highest, most visually dominant and inspiring mesa formation. It is located at

the far western edge of the site and closest to the base of the Rampart Range. It is most readily accessible from the north entrance gate. The logistical support functions are grouped at the extreme southern end of the base on a topographically level site. Their position near the south entrance facilitates access for the frequent official visitors from off base and deliveries, primarily from Colorado Springs. There are two groupings of family housing neighborhoods—Pine Valley and Douglass Valley—with shopping, recreation, and service functions of the Community Center Area located between them (USAF 2005f); see Figure 6. The central location provides for easy access to all other areas of USAFA. A total of 1,208 housing units presently exist in the housing areas at USAFA. The military family housing areas are located midway between the Cadet Area and Service and Supply in the two southernmost valleys: Pine Valley and Douglass Valley. Their relatively level valley floors offer suitable terrain for housing, while the unbuildable, sloped sides of their bordering ridges provide a natural backdrop and buffer zone for each neighborhood. Both neighborhoods consist of low-density, single-family houses and duplexes, supplemented by schools and recreational spaces. In each neighborhood, housing is organized in clusters on closed-looped roads, each rectangular loop returning to the primary access road.

The following is a general listing and allocation of land areas determined and acreages for each existing land use:

Land Use	Acreage
Academics	28
Administrative	58
Aircraft Operations/Maintenance	359
Athletics	62
Community (Commercial)	58
Community (Service)	117
Field Training	335
Housing (Accompanied)	500
Housing (Unaccompanied)	70
Industrial	375
Medical	19
Open Space (Designated)	2,429
Open Space (Natural Preserved)	11,886
Open Space (General)	500
Restricted Open Space	1,551
Tourist Areas	42
Water	66
Total Acreage	18,455

Note: Totals do not include Farish Recreation Area or Bullseye Auxiliary Airfield, both of which are outside the main USAFA grounds. USAFA accounts for each as a separate installation.

Five of the 16 categories relevant to the MFHPI areas are listed and defined below (USAF 2005f):



Figure 6. Land Use Plan

- *Housing (Accompanied)*. Accompanied housing consists of attached and detached residential units occupied by enlisted and officer families. This land use consists of military family housing and TLFs.
- *Housing (Unaccompanied)*. Unaccompanied housing includes all bachelor and visitor housing. Specific facilities include bachelor officer housing, the airmen's dormitories, visiting officer and airman's quarters, and dormitories dedicated to cadets and the Prep School.
- *Open Space (Designated)*. The open space category encompasses all outdoor uses that support the academic, military, and athletic programs. Facilities include the athletic fields, parade grounds, pools, family camping, parks and picnic areas, golf courses, riding stables, the Terrazzo level, and the Court of Honor. This category also includes all USAFA easements for public transportation and utilities corridors.
- *Open Space (Preserved Natural)*. This land use pertains to non-recreation land that does not contain buildings or other built improvements. Conservation areas, required buffer space, and utility easements are included. This land is not appropriate for building or recreational open space for a variety of reasons, including steep slopes, animal habitats, water bodies, streams, floodplain, or adjacency to a National Forest. It is not considered a land bank for development.
- *Open Space (General)*. General open space consists of land that surrounds and buffers adjoining roads, parking, and building development and should remain free of scattered structures. It is considered a land resource for unforeseen new development or the growth of adjoining existing development.

3.10 Traffic and Transportation

Traffic and transportation issues refer to the movement of vehicles and humans throughout a road or highway network. None of the parcels proposed for transfer under the MFHPI are served by major Interstate or U.S. Highways. The Douglass Valley and Pine Valley areas are each accessed by one primary route (Douglass Drive and Pine Drive, respectively). These routes do not service a significant amount of commercial or industrial locations, and are primarily limited to local traffic. The Rectories units are accessed by Faculty Drive, a road also used to access the USAFA student area.

Traffic in all areas is dominated by personal vehicles. Bus routes serve the Douglass Valley and Pine Valley areas, and bus traffic is also common in those areas. Construction and heavy equipment traffic is limited in the subject parcels, typically occurring during specialized project activities.

Traffic in each of the areas is typically highest during daylight hours and is maximized during morning and afternoon rush hours. Traffic does occur at other times, but is qualified as "light" during non-rush hours.

3.11 Socioeconomics and Environmental Justice

3.11.1 Population

El Paso County has the same geographic boundary as the Colorado Springs Metropolitan Statistical Area (MSA). The county had an estimated total population in 2004 of 539,225 (USBC 2005) and has shown an average annual increase in the last 20 years of 2 to 3% (PPACG 2005). This growth is forecast to continue at a slower rate of 1 to 2% annually over the next 25 years (PPACG 2005).

The 2004 American Community Survey (USBC 2005) reported demographic characteristics for El Paso County, the State of Colorado, and the United States, as summarized in Table 3.

Table 3. Demographic Characteristics of County, State, and Nation

	El Paso County	State of Colorado	U.S.
Total population	539,225	4,498,611	285,691,501
Age (years)			
<5	44,397 (8.2%)	337,719 (7.5%)	20,008,152 (7.0%)
5 to 14	82,310 (15.3%)	644,897 (14.3%)	40,743,721 (14.3%)
15 to 19	38,524 (7.1%)	293,076 (6.5%)	19,077,645 (6.7%)
20 to 64	325,375 (60.3%)	2,792,381 (62.1%)	171,656,682 (60.1%)
>64	48,619 (9.0%)	431,078 (9.6%)	34,205,301 (12.0%)
Median age (years)	33.5	34.5	36.2
One race	520,690 (96.6%)	4,394,381 (97.7%)	280,285,784 (98.1%)
White	436,106 (80.9%)	3,755,623 (83.5%)	216,036,244 (75.6%)
Black or African American	36,427 (6.8%)	178,731 (4.0%)	34,772,381 (12.2%)
Native American and Alaska Native	3,719 (0.7%)	30,148 (0.7%)	2,151,322 (0.8%)
Asian	13,784 (2.6%)	113,570 (2.5%)	12,097,281 (4.2%)
Native Hawaiian and other Pacific Islander	1,506 (0.3%)	7,529 (0.2%)	403,832 (0.1%)
Other	29,148 (5.4%)	308,780 (6.9%)	14,824,724 (5.2%)
Two or more races	18,535 (3.4%)	104,230 (2.3%)	5,405,717 (1.9%)
Hispanic or Latino	67,740 (12.6%)	862,631 (19.2%)	40,459,196 (14.2%)

In 2004, there were 209,000 households in El Paso County. The average household size was 2.6 people, compared to an average of 2.4 people in Colorado and the same as the nationwide average. Families (both married-couple families and other families) made up 69% of the households in El Paso County, compared to 64% in Colorado and 67% nationwide (USBC 2005).

3.11.2 Employment and Income

The unemployment rate in El Paso County was estimated at 7.1% for 2004; the state and national unemployment rates were 7.1% and 7.2%, respectively (USBC 2005). In 2004, the County's three largest employers were military: Fort Carson with 15,159 jobs, USAFA with 6,410, and Peterson AFB with 5,542 (PPACG 2005). In 2004, for the employed population 16 years and older, the leading industries in El Paso County were educational, health, and social services

(16%) and retail trade (15%) (USBC 2005). The median income of households in El Paso County was \$47,836, compared to state and national medians of \$48,198 and \$44,684, respectively (USBC 2005).

3.11.3 Housing

Of the 227,386 housing units in El Paso County in 2004, about 7.9% was vacant; the corresponding vacancy rate for the State of Colorado was 8.0% (USBC 2005). Approximately 65% of occupied housing units in El Paso County are owner-occupied, and the homeowner vacancy rate stood at 1.8% in 2004. The rental vacancy rate was 11.2%, which was somewhat higher than the rate for the State (9.2%) (USBC 2005). The median monthly rent in the county was \$682, with 40% of renters paying 35% or more of their income for rent (USBC 2005).

3.11.4 Public Schools

Academy School District Twenty operates 17 elementary schools (grades PK-5), 4 middle schools grades 6-8), and 5 high schools (grades 9-12), and also has one K-12 charter school (Academy School District Twenty 2005). Total student enrollment in the 2003-2004 school year was 19,083. There are 1,165.4 full-time equivalent (FTE) teachers in the district and an overall student-teacher ratio of 16.4 (NCES 2005).

There are three Academy District Twenty public schools located on USAFA:

- Douglass Valley Elementary School has 22.4 FTE teachers and 265 students in kindergarten through fifth grade. It is located in the north central area of the Douglass Valley housing development.
- Pine Valley Elementary School has 24 FTE teachers and 318 students in pre-kindergarten through fifth grade. It is located in the east-central area of the Pine Valley housing development.
- Air Academy High School has 83.5 FTE teachers and 1,473 students in ninth through twelfth grades. It is located just east of the Pine Valley housing area.

The school buildings for Air Academy High, Pine Valley Elementary, and Douglass Valley Elementary are owned by Academy District Twenty. The land is leased to the District from the Government. The schools would not be conveyed as part of the proposed action.

SECTION 4. ENVIRONMENTAL CONSEQUENCES

4.1 Air Quality

The analysis was based on a review of existing air quality in the region, information on USAFA air emission sources, projections of emissions from the proposed activities, and a review of the Federal and Colorado regulations for air quality. Emissions from construction and operation of the proposed facilities were analyzed.

Proposed Action

Demolition and construction of the proposed housing would generate emissions of criteria pollutants from grading and excavating operations, construction equipment, trucks driving on paved and unpaved roads, and worker vehicles. There would be minimal disturbance of ground in the Rectories area. Approximately 100 acres in the Douglass Valley housing area and about 258 acres in the Pine Valley area would be disturbed with demolition and/or construction of housing. Fugitive dust emissions (including PM₁₀) would be generated from grading and fill operations, and from truck trips on paved and unpaved roads during construction. A grading permit for fugitive particulate emissions shall be required from El Paso County for disturbing more than one acre of ground (for each of the proposed projects). As discussed in Section 3.1.3, this permit will require the completion of a drainage plan and an erosion control plan. The erosion control plan must include mandatory practices to limit soil erosion (from wind and water). Some of the required measures would control fugitive dust. A Colorado APEN for fugitive dust will be required for construction if grading and excavating would disturb more than 25 acres for longer than six months (the time of land disturbance begins with initial grading and clearing and ends when the disturbed ground is stabilized through compaction or revegetation). This APEN, if applicable, will require the implementation of fugitive dust control measures from onsite unpaved roads, disturbed soil, and mud and dirt on paved roads adjacent to the site. These measures include application of water and chemical stabilizers, revegetation, temporary furrows, and synthetic or natural coverings (netting or mulching) to disturbed areas as needed, to reduce fugitive dust (a source of PM₁₀) levels by 80% from uncontrolled levels. Emissions of particulates from construction would not be significant. Emissions of other criteria pollutants, including ozone precursors, would be minor and temporary. Emissions from construction would not be significant.

Emissions from unpermitted stationary sources would decrease with the proposed action. As older housing is demolished, the number of residential furnaces would be reduced. Newly constructed and renovated units would operate with newer, more efficient furnaces. No new permitted stationary sources would be added; therefore, no APENs for criteria pollutants or HAPs will be required. USAFA will remain below major source and PSD thresholds, as actual emissions and the potential to emit would remain below 100 tons for criteria pollutants. Long-term emissions from stationary sources would be reduced and would not be significant.

Estimated emissions would not exceed the NAAQS or state standards due to the amount of criteria pollutants generated, the relatively large area in which the emissions would occur, and the dispersive meteorological conditions (winds average between 8 and 12 miles per hour) in

which the emissions would be generated. Therefore, the focus of the analysis centers on conformity with the SIP for the CO maintenance area.

USAFA, as part of the Colorado Springs metropolitan area, is located within a maintenance area for CO. Emissions would be regionally significant if they exceeded 10% of the inventory for any affected pollutant (in this case, CO). The SIP budget for CO in the Colorado Springs metropolitan area is 292.8 tons per day (106,872 tons per year). Emissions from the proposed action (construction and operation) do not comprise 10% of the daily inventory and are not regionally significant.

Conformity thresholds, as defined in 40 CFR 51, Subpart W, are used to determine conformity with a SIP. The threshold for CO is 100 tons per year. Estimated emissions from the proposed action are less than this threshold and will conform to the SIP, and are not significant. The proposed action is not regionally significant and the total direct and indirect emissions would be below the 100 tons per year de minimis threshold for CO. Therefore, this project is exempt from further conformity analysis pursuant to 40 CFR 93.153.

Construction equipment would generate small amounts of HAPs. These emissions will not be significant. Long-term emissions of HAPs would not increase as a result of the proposed action. USAFA will remain a minor source for HAPs, as actual emissions or the potential to emit a single HAP would remain below 10 tons per year, and the actual emissions or potential to emit all HAPs will remain below 25 tons per year. Impacts to air quality would not be significant.

No Action Alternative

Emissions of criteria pollutants and HAPs would remain the same as at present under the no action alternative. Any future construction and demolition of housing will require the same regulatory compliance as that listed above for the proposed action, and any associated emissions are expected to be less frequent, with actions occurring intermittently over a longer period than those described under the proposed action. Impacts from the no action alternative would not be significant.

4.2 Soils, Geology, and Topography

Geological studies, soil surveys, previous EAs, and a USGS topographical map were reviewed to characterize the existing environment. Construction activities that could influence geological resources were evaluated to predict the type and magnitude of potential impacts. For example, soils would be disturbed during construction activities, especially during demolition of housing areas and grading activities. The predicted post-construction environment was compared to the existing environment and the change was evaluated to determine if significant changes in any existing conditions would occur.

Proposed Action

The proposed action would result in about 100 acres in the Douglass Valley area and about 258 acres in the Pine Valley area being disturbed during demolition and construction of housing

areas, with the potential for additional acreage in Douglass Valley (depending on the Project Owner's proposal) disturbed during renovation activities. There would be minimal disturbance of ground in the Rectories area. The proposed action requires an El Paso County grading permit and, if 25 or more acres were disturbed for more than 6 months, an APEN from the State of Colorado. The demolition and construction activities would take place in areas with slight to moderate slopes, with a moderate to severe risk of erosion.

The El Paso County grading permit includes mandatory controls to reduce potential erosion. Permit requirements must include a drainage plan to control storm water runoff (and potential erosion) during construction. Storm water runoff could be controlled by sediment barriers such as silt fences or straw bales, or structural controls such as a temporary sediment basin. Measures to control erosion must conform with the El Paso County Drainage Criteria Manual. The El Paso County Land Development Code also requires a final site plan for stabilizing steep slopes and limiting storm water runoff from completed structures. These best management practices must be implemented in accordance with County requirements. If an APEN is required, further measures to control wind erosion and fugitive dust shall also be implemented. These controls could include daily watering or chemical stabilization of exposed surfaces, maintaining existing vegetation as much as possible, and revegetating sites as soon as possible, limiting vehicle speeds, or gravelling temporary roads, wind breaks, temporary compaction, or synthetic or natural covering, such as netting or mulching. Areas would be vegetated as soon as practical as the proposed action is being completed. In addition, (1) USAFA's *Integrated Natural Resources Management Plan* (INRMP) (USAF 2003) requires the use of native seed mixes and the Natural Resource Conservation Service's recommended site preparation and seeding guidelines for all revegetation projects to promote the establishment of natural vegetation cover; and (2) the current version of the RFP states that, as part of its demolition plan, "the [Project Owner] shall grade to drain and seed all areas disturbed and/or not scheduled to receive new construction in accordance with the USAFA Revegetation Specification." Impacts to soils and geological resources would not be significant. Further permit requirements and potential impacts to hydrogeology and groundwater are discussed in Section 4.3.

As discussed in Section 3.2.1, there are no major faults in the project area. The risk of earthquake damage is slight, with expected magnitudes of any seismic events in the range of 4.0 to 4.4 on the Richter Scale (V to VI on the Modified Mercalli Scale). Seismic design parameters will not be required. Impacts from seismicity would not be significant.

Long-term soil productivity in affected areas would not be significantly impacted. Topsoil must be restored to disturbed areas and vegetation shall be reestablished, maintaining soil productivity.

No Action Alternative

The proposed demolition and construction of housing would not occur, or would occur over a longer timeframe, under the no action alternative; therefore, geological resources would not be impacted.

4.3 Water Resources

Maps showing topography, watersheds, and base drainage were examined. The review focused on the proximity of the proposed activities to surface waters, hydrogeology in the project area, and water quality in the local area, and evaluated the effects of the actions with regard to those factors. The assessment of potential impacts to wetlands focused on the locations sited for construction of new facilities relative to the wetlands on USAFA. Data sources for the analysis included USAFA's Integrated Natural Resource Management Plan, USAFA's General Plan, and regulations pertaining to wetlands.

Proposed Action

Grading during demolition and construction would not impact groundwater. A spill or leak of fuel or lubricants is not likely during construction in this area, but if one occurs, it must be cleaned up immediately, in accordance with the Spill Response Plan, to prevent potential contamination of the alluvial aquifer. Given the small amount of oil and fluids used by construction equipment, impacts would not be significant.

Approximately 358 acres could be disturbed during demolition and construction. Disturbed areas would be vulnerable to wind and water erosion during grading and excavation of the site. Particulate matter would be transported and deposited by wind in the local area. Water erosion could occur on steeper slopes near the edge of the areas to be graded, but mandatory erosion control measures required by the NPDES permit for USAFA will limit runoff and sedimentation to preconstruction conditions, and the impacts to streams would not be significant.

Demolition of housing units and restoration of land to green space in the Pine Valley area would reduce impermeable surfaces and slow the amount of runoff into streams. Over the long term, this would reduce the amount of sedimentation and the potential for flooding. The amount of recharge into local alluvial aquifers would slightly increase.

About 0.1 acre of Parcel D (Pine Valley) is within the 100-year floodplain. Some of the existing Pine Valley housing units are located near the 100-year floodplain. Grading and demolition activities would avoid altering the floodplain area. After demolition is complete and the area reseeded and naturalized, runoff into West Monument Creek would be reduced. This would result in a slight reduction in the potential flooding of downstream areas during periods of heavy rainfall. Housing units are not near a floodplain in Douglass Valley and the Rectories, and there are no floodplains within the parcels to be conveyed in these areas. Any newly constructed units would be located outside of the floodplain.

Wetlands at USAFA are protected by compliance with Executive Order 11990 and Section 404 of the *Clean Water Act*. Federal policy is to avoid siting projects in wetlands whenever possible; however, if circumstances make it impracticable to avoid wetlands, then mitigation of unavoidable impacts must be planned. There are wetlands near the housing units to be demolished in Pine Valley. The closest of these wetlands are about 80 feet from housing units. Many of these wetlands have not been delineated to determine if they are under the jurisdiction of the USACE. These wetlands must be delineated and marked to be avoided during demolition

activities. The wetlands next to construction sites could be impacted from stormwater runoff. Stormwater runoff must be controlled using best management practices in accordance with NPDES stormwater management regulations. If needed, permit requirements could be determined during a formal permitting process with the USACE.

During construction of new housing units, direct and indirect disturbance of wetlands must be avoided to the extent possible. Stormwater could also flow into wetland areas after construction is completed. These impacts would be minimized through appropriate design features and required operational practices, in accordance with NPDES requirements, to control runoff to preconstruction levels. All proposed facilities must be operated according to Air Force policy, and other appropriate Federal and state laws and regulations to provide adequate environmental safeguards against impacts to wetlands.

No Action Alternative

Under the no action alternative, there would be no impact to groundwater, surface water, or floodplains. Under the no action alternative, baseline conditions would not change, or would change more slowly over time approaching the conditions of the proposed action, and no new impacts would occur to wetlands.

4.4 Biological Resources

4.4.1 Vegetation

Proposed Action

Fire Prevention and Suppression. USAFA's INRMP (USAF 2003) states that "Although ponderosa pine forests historically would be expected to contain numerous openings and a diversity of age classes, crown closure has occurred within the Academy's ponderosa stands, and openings are being filled with small young trees and Gambel's oak. As a result of the presence of understory ladder fuels and crown closure, these forest conditions are particularly susceptible to catastrophic, stand-replacing wildfire." Similarly, due to "the lack of mechanical thinning, [mixed conifer] stands have become overstocked with interlocking crowns and heavy understory ladder fuels. . . . This two-level vegetation structure is highly susceptible to crown fire and catastrophic forest fires." Defensible space is required near residences to prevent the spread of wildfire to them, as well as to prevent the spread of a residential fire to the forest. USAFA's INRMP specifies management actions for defensible space maintenance, and states that USAFA follows the guidance of the Colorado State Forest Service in determining defensible space requirements. Several areas near the housing developments are currently in need of thinning to meet management objectives for fire prevention, particularly near the SOQs in Douglass Valley; however, over the life of this proposed action (50 years), this issue will be relevant to all areas. Section 3.5.6 of the draft RFP (dated March 28, 2006) states, "The [Project Owner] shall manage all native and semi-native areas in a manner consistent with the USAFA Integrated Natural Resources Management Plan." Therefore, current management practices shall be followed under the proposed action, and no impacts are predicted in native and semi-native areas. However, there is no requirement in the RFP for fuel hazard mitigation and defensible space maintenance

in developed areas (yards and common areas), and therefore the potential for impacts from the proposed action remains a data gap pending USAFA's receipt of a detailed plan for this issue from the Project Owner, once a Project Owner has been selected.

Disease and Insect Conditions. Conifer forests throughout USAFA have been observed to host the mountain pine beetle, ips beetle, needle miner, dwarf mistletoe, shoestring root rot, and other insects and diseases. If uncontrolled, trees harboring insects or disease will spread the condition to other nearby trees. Also, trees that die due to insects or disease pose an increased fire and safety hazard. USAFA has identified and implemented prevention and control methods for each (USAF 2003). Section 3.5.6 of the draft RFP (dated March 28, 2006) states, "The [Project Owner] shall manage all native and semi-native areas in a manner consistent with the USAFA Integrated Natural Resources Management Plan." Therefore, current management practices shall be followed under the proposed action, and no impacts are predicted in native and semi-native areas. However, there is no requirement in the RFP for management of silvicultural or vegetation diseases and insects in developed areas (yards and common areas), and therefore the potential for impacts from the proposed action remains a data gap pending USAFA's receipt of a detailed plan for this issue from the Project Owner, once a Project Owner has been selected.

Noxious Weeds. Specific management methods implemented by USAFA to control noxious weeds include the following measures relevant to the areas in and adjacent to the housing developments: release biological control agents that have been proven effective and host-specific for controlling noxious weeds, control up to 500 acres of noxious weeds using approved herbicides, conduct fall/winter/spring prescribed burns on up to 250 acres of weed-infested rangeland to stimulate native vegetation and reduce the weed seed bank, use native seed mixes and Natural Resource Conservation Service-recommended site preparation and seeding guidelines for all revegetation projects, close off and revegetate any unnecessary roads and trails to prevent unauthorized off-road vehicle use, identify areas of excessive soil erosion and sedimentation and implement projects to restore habitat, and work with base grounds maintenance to reduce or eliminate mowing along roadways, stream corridors, and other natural areas.

Section 3.5.6 of the draft RFP (dated March 28, 2006) states, "The [Project Owner] shall manage all native and semi-native areas in a manner consistent with the USAFA Integrated Natural Resources Management Plan." The INRMP includes implementation of USAFA's Integrated Noxious Weed Management Plan; therefore, the Project Owner will be required to follow this plan and will be responsible for noxious weed control on the leased property. In addition, the *Colorado Noxious Weed Act* (CRS 35-5.5) mandates control of noxious weeds listed under the Act, with enforcement up to and including eradication by the local governing body and assessment of the associated costs to the affected landowner or occupant. Therefore, adequate noxious weed control shall be continued under the proposed action, and no impacts are predicted.

There is a potential for a positive impact on vegetation resources as a result of the re-establishment of native plant communities where surplus homes will be removed and the land returned to its natural state.

In currently landscaped and developed areas, activities during construction, renovation, and demolition would lead to short-term impacts on vegetation. The RFP states that, in common areas and building unit perimeters, “existing trees shall be saved to the maximum extent possible.” The Project Owner is also required to develop a Facilities Maintenance Plan that addresses grounds maintenance (individual yards, common and recreational areas), tree and shrub maintenance at units including vacant units (foundation plantings) and common areas (including tree trimming, dead tree/plant replacement), and noxious weed management. USAFA’s acceptance of this plan and the Project Owner’s subsequent implementation is expected to result in no adverse impacts to vegetation maintenance in developed areas.

No Action Alternative

Management of USAFA’s natural resources by the Air Force has been conducted in accordance with policies summarized in the INRMP (USAF 2003). Under the no action alternative, management of these resources within the housing areas, including vegetation, would continue as in the past. Fire prevention, disease/insect control, and noxious weeds are the three primary vegetation management issues relevant to the undeveloped lands adjacent to, and sometimes extending within, the housing areas proposed for transfer. No impacts to the effective management of these issues would occur as a result of the no action alternative.

4.4.2 Wildlife

No adverse impacts to general wildlife species are anticipated as a result of the no action alternative or the proposed action, since all activities will occur in previously developed areas, and some developed areas may be returned to a natural state following demolition of surplus housing units (based on the Project Owner’s specific proposal). The RFP requires only that “the Project Owner shall grade to drain and seed all areas disturbed and/or not scheduled to receive new construction in accordance with the USAFA Revegetation Specification.” Under the proposed action, the decreased family housing population (from 1,208 units to 427 units) will also create less traffic, with an associated decreased likelihood of vehicle accidents involving deer and elk (the recent average is 30 to 35 such accidents annually USAFA-wide (USAF 2003)).

With continued public education and simple control measures (such as bear-proof trash containers), the incidence of problem wildlife encounters with residents could continue to decline under the proposed action, as it has recently under USAFA management.

4.4.3 Threatened, Endangered, and Sensitive Species

Preble’s Meadow Jumping Mouse

The assessment of potential for impacts to the PMJM population in the housing areas at USAFA under both the no action and proposed action alternatives is complicated due to a dynamic situation. The U.S. Fish and Wildlife Service has proposed this species for delisting from protection under the *Endangered Species Act*; a final rule has not been published as of the date of this EA. With the close of the transaction under the proposed action currently scheduled for

September 2006, the PMJM may or may not have the same protected status as it does at the time of this EA's publication. Another factor is that USAFA's program for ongoing protection of PMJM is governed by a Conservation Agreement with the U.S. Fish and Wildlife Service, which is currently operating under a one-year extension to the original five-year timeframe. This extension was sought to maintain USAFA's current program for the time between the original agreement's expiration (June 2005) and the pending outcome of the delisting proposal described previously.

The USAFA Conservation Plan for PMJM (CNHP 1999) states that:

The Pine Valley housing complex is adjacent to West Monument Creek . . . and may be adversely impacting PMJM habitat there. The potential for disturbance to PMJM from domestic predators, recreational traffic, and hard surface run-off exists. This section of the USAFA has the greatest potential for such conflicts.

and

[Douglass Valley Creek] contains a small population that is isolated both upstream and down. The mice along this creek are separated from Monument Creek population by a one-mile stretch of patches of willow shrub habitat interspersed in a matrix of grass/forb. This lower stretch was trapped in 1997 with negative results. The habitat in much of this lower stretch is present, but patchy. In some places erosion has created downcutting of the canyon. Restoration is feasible, but will be more difficult in areas where slopes are excessively steep. . . . Adverse impacts from Douglass Valley housing have not been observed. However, only one mouse has been captured, and proximity to housing is theorized as a potential limiting factor in PMJM abundance. In addition, direct and indirect impacts from residential development are known to degrade riparian habitats.

Proposed Action

Based on these findings, it is readily apparent that housing construction, demolition, renovation, and residential occupation activities will occur in close proximity to PMJM habitat and that attentive oversight and adherence to the conservation measures is required for protection of these proximate populations.

Under the proposed action, Section 3.5.7 of the Draft RFP (dated March 28, 2006) states that

The [Project Owner] shall manage all designated mouse habitat within the leased premises in a manner that complies with the *Endangered Species Act* and the Base's Conservation Agreement and Management Plan for the Preble's Meadow Jumping Mouse. All activities that may impact mouse habitat, either directly or indirectly, shall be coordinated with the Base's Natural Resources Office. The [Project Owner] shall also be responsible for conducting any necessary *Endangered Species Act* consultations with the U.S. Fish and Wildlife Service, including all activities related to demolition, site restoration, renovation, new construction, and property management.

As a result of this process, no adverse impacts to PMJM are predicted to occur due to the proposed action. A long-term positive impact could be realized as a result of returning the land to its natural state in areas where existing Pine Valley homes currently encroach on potential PMJM habitat. Informal consultation with the U.S. Fish and Wildlife Service is ongoing (see Appendix C).

If the proposed PMJM delisting rule is approved, specific measures to protect this species will not be required. However, no significant degradation of the riparian habitat would be expected under the proposed action. USAFA will ensure, through the use of pre-construction conferences and approval of the Project Owner's construction management plan, that industry best management practices shall be followed in all ground-disturbing activities.

USAFA and the PO will continue to manage the species as threatened in the absence of a final listing decision.

No Action Alternative

Under the no action alternative, if the proposed PMJM delisting is not finalized, USAFA must coordinate with the U.S. Fish and Wildlife Service to develop and implement a new five-year Conservation Plan and Agreement to continue to protect PMJM near the housing areas during any specific demolition, construction, renovation, and residential occupation activities that are planned for that timeframe, with no adverse impacts to the species expected.

If the proposed PMJM delisting rule is approved, specific measures to protect this species will not be required. However, no significant degradation of the riparian habitat would be expected under the no action alternative. Under the no action alternative, USAFA's INRMP will continue to protect the PMJM's riparian habitat through best management practices that protect watershed function and prevent erosion, sedimentation, and excess runoff; and to strongly discourage any new development within floodplains.

Other Threatened, Endangered, or Sensitive Species

No impacts are expected to other threatened, endangered, or sensitive species at USAFA from the proposed action or the no action alternative. All housing demolition, construction, renovation, or residential occupation activities will occur in previously developed areas that do not provide permanent habitat for these species. Additionally, Section 3.5.6 of the draft RFP (dated March 28, 2006) states, "The [Project Owner] shall manage all native and semi-native areas in a manner consistent with the USAFA Integrated Natural Resources Management Plan."

USAFA's management for Merriam's shrew focuses on protecting the high quality grassland habitat at the east end of Pine Valley; this would entail controlling any noxious weeds, possibly prescribed burning the grassland, and excluding development and ground disturbing activities. The proposed action should not affect the current Merriam's shrew habitat, but future habitat areas could be created through the proper restoration of native vegetation in Pine Valley.

4.5 Human Health and Safety

Proposed Action

Under the proposed action, of the 427 housing units to be managed, only 92 require no renovation (22%). The remaining units would either be newly constructed or renovated. New

construction and renovation will provide the opportunity to remove hazardous materials of construction (including asbestos and lead-based paint), and thereby reduce the safety risks posed by these materials; additional information is provided in Section 4.6. Additionally, the overall reduction in housing units would result in a significant decrease in traffic volumes. Safety risks associated with traffic incidents would decrease as a result.

Demolition, construction, and renovation activities present a new set of safety risks. These risks include health risks due to hazardous materials that may become airborne; risks associated with temporary increases in heavy equipment; occupational risks associated with construction zones in general (including trip and fall hazards and noise hazards); and unauthorized entrance to construction areas (with associated potential for injury) by members of the public (particularly children). These safety risks would be short-term, ceasing after demolition, construction, and renovation activities are completed. Additionally, these safety risks shall be mitigated through the use of water sprays during demolition, site security, industry standard occupational protective measures (such as fall protection and hearing protection), and other standard construction management practices.

Children are more sensitive to some environmental effects than adults, including those resulting from exposure to the hazards identified above. The removal of hazardous materials, including asbestos and lead-based paint, would benefit the environment for children in the residences. The RFP requires the Project Owner to conduct a representative sampling of soil immediately surrounding the housing, gardens, and likely children's play areas prior to occupancy of renovated or newly constructed housing where soil was disturbed. If the results exceed screening values for chlordane and lead set under Federal and state law, the Project Owner will conduct a complete risk assessment. The results of screening sampling or a risk assessment will be provided to the Government for approval prior to occupancy.

Implementation of measures to restrict access to demolition and construction sites may deter children from entering such areas during work and non-work hours. The Project Owner shall follow all state and local requirements for security procedures during construction. Finally, since noise increases would be intermittent and short in duration, special risks to children from demolition and construction noises are not anticipated.

Overall, the short-term increases in safety risk would be outweighed by the long-term benefits of removal of hazardous materials and reductions in traffic incidents. Risks thought to be more damaging to children would be reduced as a whole.

No Action Alternative

Under the no action alternative, no immediate changes from current health hazards and safety risks would be realized. Hazardous materials, such as asbestos and lead-based paint, would remain in place longer or permanently in many housing units. Traffic volumes would not appreciably decrease from current levels in the short-term. Safety risks from a long-term renovation campaign would remain.

4.6 Solid Waste and Hazardous Materials

The analysis was based on a review of potential issues with hazardous materials and wastes. The analysis focused on the types of proposed activities and where they would occur. The analysis looked at the mechanisms of potential spills or leaks, the likelihood of a dispersion of hazardous material, and the severity of consequences that could occur.

Proposed Action

Solid waste generation would show a short-term increase due to housing renovations and demolitions, followed by a decrease in long-term recurring solid waste generation due to the significant decrease in the number of residential housing units. The Project Owner shall be responsible for disposal of solid waste generated from the proposed action, using either the Colorado Springs landfill or privately owned landfills. In the most recent version of the project RFP, USAFA has stated that recycling and deconstruction (the selective dismantling or removal of materials from buildings before or instead of demolition to reduce the generation of solid waste) is highly encouraged.

Fuels and lubricants would be used for equipment during demolition, excavating, grading, and construction of housing units within the proposed action sites. Other hazardous materials such as paints, thinners, and sealants may be used during the construction and renovation activities, but must be controlled under standard safety and handling procedures. Although construction of new housing units could temporarily increase the use of hazardous materials and amount of hazardous waste generated, no new types of hazardous materials/wastes would be used or generated. Standard safety procedures will be required (e.g., no smoking while fueling equipment). Overall, construction activities would minimally change the short-term generation of wastes. ACMs, LBPs, and PCBs are concerns for structures being demolished or renovated. The age of the project housing units suggests, and past surveys verified, the presence of these hazardous materials. Section 3.5 of the draft RFP requires the Project Owner to be responsible for all ACM removal and disposal, and follow all applicable laws and regulations in relation to asbestos work; follow Department of Housing and Urban Development guidelines for care and maintenance of existing LBP in housing, and abate LBP hazards at the time of a change in occupancy or during renovation/demolition in accordance with Federal regulations; take all necessary measures consistent with the Air Force Radon Assessment and Mitigation Program to ensure that levels of radon within all housing units are lower than the Air Force action level of 4 picocuries per liter and, in all new construction and renovation, implement prudent radon reduction measures consistent with the latest building practices; and remove any unregulated heating oil USTs found in the project area (with the Government responsible for soil sampling and remediation of petroleum-contaminated soil, as required). Sections 4.2 and 4.3 address potential impacts to geological and water resources from potential spills of hazardous materials.

Overall, the proposed action would be associated with a short-term increase followed by a long-term decrease in solid waste generation, and a short-term increase in hazardous waste generation leading to a long-term decrease in the potential for residential exposure to hazardous substances used in building materials.

No Action Alternative

Under the no action alternative, there would be no currently planned changes to the solid waste and hazardous materials and waste content of the housing area. Residential housing would continue to look and operate the same as it currently does with the management of solid waste and recycling at USAFA. Scheduled maintenance and renovation of housing buildings would likely continue as needed, and solid waste and hazardous materials and waste generation would create minimal impacts. Any future construction and demolition of housing will require the same regulatory compliance as that listed above for the proposed action, and any associated waste-generating activities are expected to be less frequent, with actions occurring intermittently over a longer period than those described under the proposed action.

4.7 Noise

Proposed Action

Under the proposed action, of 1,208 housing units conveyed via the MFHPI, 800 units would be demolished and 19 new units would be constructed, resulting in a total final population of 427 housing units (a 65% reduction). As a result of the overall reduction in housing units, associated traffic would be expected to decrease, thereby reducing noise created by area traffic.

During demolition, construction, and renovation activities, increases in associated noises would be realized. These noises would be attributable to operation of heavy equipment, increases in traffic from waste hauling activities, and other construction-related sources. These noises would be short-term, ceasing to continue after demolition, construction, and renovation activities are completed. Additionally, construction activities could be scheduled to limit these noises to daylight hours, and noise mitigation measures could be implemented. Although sleep interference is unlikely, time considerations may be warranted during construction activities in the immediate vicinities of area schools.

Noises attributable to aircraft operation would not change from the baseline conditions. Overall, the short-term increases in noise caused by construction activities are not anticipated to be significant, and the long-term reductions in area noise due to reduced traffic would outweigh any short-term noise increases.

No Action Alternative

Under the no action alternative, no changes from current noise levels would be realized. Noises would continue to be created by aircraft operation, traffic, residential use, and isolated ancillary activity. While some noise associated with renovation, construction, and demolition may still be realized under this alternative, the activities would be conducted less frequently.

4.8 Cultural Resources

Proposed Action

The U.S. Air Force is required to comply with existing legislation to ensure that properties that may qualify for inclusion on the NRHP are not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

Under the proposed action, renovation and construction of houses must follow strict architectural guidelines to fit in with the existing character of USAFA. Per 36 CFR 800, a Memorandum of Agreement may be prepared between USAFA and the State of Colorado Historic Preservation Office (SHPO), with the Project Owner being a third-party signatory, as the means to mitigate the adverse impact described in the CFR. The original houses, although constructed to follow the International Style displayed prominently in other areas of the base, have been altered and changed so much over the last 40 years that they are not considered to be historically significant. It is aesthetically important that the residences remain in the valleys originally planned for housing, staying with the overall land use theme and planning for USAFA. The replacement housing would not impact viewsheds.

Proposed demolition of housing would not be in the areas or within paths of cultural/architectural resources. Pine Valley Main, Parcel D, would encompass the majority of the proposed demolition. The Carlton House, listed on the NRHP, would not be affected by demolition but would be renovated (if the Project Owner elects this option instead of proposing construction of a new Superintendent's Quarters), maintained, and managed for occupancy. The draft RFP states that all renovation activities at the Carlton House must be coordinated with the Colorado State Historic Preservation Office and USAFA. The Otis House is not listed on the NRHP, but its original architectural style must be maintained through the renovation (if the Project Owner elects this option instead of proposing construction of a new Commandant's Quarters), in accordance with the current version (3/28/06) of the Draft RFP for the proposed action. If the Project Owner elects to construct new Superintendent's and /or Commandant's quarters in lieu of renovating the Carlton and/or Otis Houses, the historic houses will be maintained for occupancy in a condition equal to or exceeding that at which they were originally conveyed to the Project Owner, and will revert to the Government when the new quarters are completed.

No significant impacts to cultural resources are expected as a result of the proposed action.

No Action Alternative

Under the no action alternative, there would be no changes to the architectural nature of the housing area. Residential housing would continue to look the same as it currently does, in the absence of current plans to conduct any construction, renovation, or demolition activities. Continual repairs and maintenance will likely further change the original character of the building structures.

4.9 Land Use

Proposed Action

About one-third of the units would be demolished in Douglass Valley. Part of this land would be used for constructing 18 new housing units. The remainder would return to open space and be reseeded with native grasses. Land use in the remainder of the units in Douglass Valley would not change. The new construction of 18 housing units would not affect land use, for the area to be developed is already residential housing. Slight changes to improve the neighborhoods will occur, but the overall use of the land in the area will not change. In Pine Valley, 800 units are proposed for demolition, as a result of which previously designated housing (accompanied) land will be returned to open space (designated, natural preserved, or general) land. Residential housing land use will remain the same in all other areas conveyed under the proposed action. Land use impacts would not be significant.

No Action Alternative

Under the no action alternative, there would be no changes to land use, in the absence of current plans to conduct any construction, renovation, or demolition activities. Residential housing would continue to exist in the same areas as at present.

4.10 Traffic and Transportation

Proposed Action

Under the proposed action, of 1,208 housing units conveyed via the MFHPI, 800 units would be demolished and 19 new units would be constructed, resulting in a total final population of 427 housing units (a 65% reduction). As a result of the overall reduction in housing units, associated traffic volumes would be expected to decrease.

During demolition, construction, and renovation activities, localized increases in traffic volumes may occur. These increases would be dominated by construction and heavy equipment traffic. These volume increases would be short-term, ceasing after demolition, construction, and renovation activities are completed. Additionally, construction activities could be scheduled to time these traffic volume increases to daylight hours and away from morning and afternoon rush hours.

Overall, the short-term increases in traffic volumes caused by construction activities are not anticipated to be significant, and the long-term reductions in traffic volumes would outweigh any short-term traffic volume increases.

No Action Alternative

Under the no action alternative, no changes from the current traffic volumes would be realized. While some traffic volume increases associated with renovation, construction, or demolition may still be realized under this alternative, the activities would be conducted less frequently.

4.11 Socioeconomics and Environmental Justice

4.11.1 Employment and Income

No significant effects to employment and income are expected under the proposed action or the no action alternative.

During the transition period of the proposed action (estimated to be six years), new jobs will be created to directly accomplish construction, demolition, and renovation activities; and indirectly as a result of purchasing goods and services needed for construction and consuming goods and services made possible by wage and salary expenditures of direct workers. Overall, there would be a short-term beneficial impact to the local economy. Under the no action alternative, construction/demolition/renovation activities would likely occur at a lower intensity and over a longer time period, also resulting in no adverse impact to employment and income and a lower level of potential beneficial impact.

4.11.2 Housing

Comparing the current occupancy of housing at USAFA (approximately 870 of 1,208 units occupied) with the proposed action's end state (427 units), alternate housing requirements are predicted for 443 families. However, approximately 316 of the USAFA units are currently occupied by personnel from Peterson and Schriever AFBs and other local military installations (USAF 2004b). Schriever and Peterson AFBs are currently planning to implement housing privatization actions of their own. The remaining need for 127 family housing units can be readily absorbed by the local market, for which, in 2004 in El Paso County, there was a rental vacancy rate of 11.2%, and overall vacant housing of 17,949 units.

Under the no action alternative, there would likely be a more sustained period of surplus housing at USAFA until the Air Force completed demolition itself.

No significant adverse effects to housing resources are predicted under either alternative.

4.11.3 Public Schools

No short-term effects on public schools are expected as a result of the no action alternative, although eventual decreases in the housing stock at USAFA will cause an overall decline in the school-age enrollment from USAFA residents, which are likely to be offset by increased potential enrollment from growth in the school district as a whole.

Under the proposed action, USAFA's preliminary expectation was that Pine Valley Elementary School and Air Academy High School, both located in the Pine Valley development, would be closed, in coordination with Academy District Twenty. USAFA estimates that 423 students will live on base after implementation of the proposed action, compared to approximately 859 at present. In August 2004, the school district responded to a request from USAFA to coordinate regarding planning for the changes in the district's three public schools at USAFA as a result of

the housing privatization initiative. At the time of this EA, the details of the course of action have not been determined. Potential alternatives as a result of the proposed action could include the following:

- Closure of Pine Valley Elementary School and Air Academy High School, with continued operation of Douglass Valley Elementary School. Increased transportation costs would be avoided (compared to closing schools in other locations), since all housing in the Pine Valley main parcel is proposed for demolition. If Pine Valley Elementary School and Air Academy High school remained open, all students attending them would require transportation from either the Douglass Valley housing or off-base locations.
- Closure of Douglass Valley Elementary School with continued operation of Pine Valley Elementary School and Air Academy High School. Transportation costs would increase for transporting elementary school students living in the Douglass Valley housing area to Pine Valley Elementary School. USAFA would explore alternative uses of the Douglass Valley Elementary School building, which would contribute toward addressing a space utilization shortfall at USAFA.
- Closure of both elementary schools with continued operation of Air Academy High School, with its conversion to a K-12 school. Transportation costs would increase for transporting elementary school students living in the Douglass Valley housing area to a new K-12 school at Air Academy High School's location in Pine Valley.

Other actions may also be taken, as a result of coordination between Academy District Twenty, which operates the schools, and USAFA, which owns the three buildings.

In its August 2004 letter to USAFA (USAF 2004b), Academy District Twenty analyzed the effects on the school district from potential outcomes. The student population numbers as a result of the proposed action may differ from those assumed by the district in their analysis:

- The district made the conservative assumption that the decrease in housing units would lead to that same size of a decrease in the number of families sending their children to schools in Academy District Twenty. (In reality, an unknown number of students would likely continue to attend schools within the district.) The district estimated a loss of 544 pupils, compared to the loss of 436 pupils currently estimated by USAFA if all students attended schools elsewhere. The district correlated a loss of 544 students with a recurring annual revenue loss of \$3,976,400, based on decreased per-pupil funding and decreased Federal impact aid. This would be offset by school staff reductions, projected to save \$2,239,900, for an annual net revenue loss of approximately \$1,946,800. Revenue for the district's food service fund, estimated at \$138,000 annually, would also be lost. A reduction of staffing needs by one principal and 29 teaching positions was also estimated.
- If Douglass Valley Elementary School is closed, deferred maintenance costs of approximately \$2,662,957 would be avoided, an estimated one-time expenditure of \$12,784 in scheduled maintenance would no longer be necessary, and reduced use of maintenance vehicles will save approximately \$4,000 per year. In addition, approximately \$38,000

remains to be paid over the next three years toward a lighting retrofit at the school that was undertaken in summer 2003.

- The lease terms for the Douglass Valley Elementary School building give USAFA the option of keeping and using the building. If USAFA does not exercise this option, the district must demolish the building and return the land to its native condition. Demolition costs, including asbestos abatement, were estimated to range from \$170,000 to \$215,000. Although USAFA has not committed to continued use of the building, a space utilization study concluded that they have a significant shortfall in projected available space compared to projected needs, and they have stated that they would explore alternative uses of the building. If that were the case, these costs would be avoided.

Although the district's 2004 analysis indicates that the financial and staffing impacts on the school district could be significant, they also acknowledged that there may be a need for the principal and teaching positions at other schools across the district, potentially alleviating this impact; this would depend on the actual school closing scenario implemented, the enrollment and staffing status of the district overall, and results of a school boundaries study in the district. If students re-located outside of the school district, decreased revenue from per-pupil funding would be offset by decreased per-pupil expenditures. If Federal impact aid is decreased as a result of families re-locating off-base but remaining in the school district, other revenue sources would replace it, such as property taxes, since impact aid is a substitute for (not in addition to) such revenue for school-age children residing on Federal land within a public school district. The school district may have to absorb some short-term costs should USAFA elect to not use any excess buildings as a result of closing one or more schools. Even if as many as the district's estimate of 544 pupils were lost, this represents less than 2.9% of the 2003-2004 enrollment in the district. Using USAFA's estimated loss of 436 students, the loss would be less than 2.3%. Given that Academy District Twenty's PK-12 enrollment has been growing at a rate of 2 to 6% annually since 1995, and that an influx of students into the entire El Paso County public school system is expected to coincide with the move of up to 10,000 new soldiers to Fort Carson in the very near term, any decreased Academy District Twenty public school enrollment as a result of the proposed action is not expected to be a significant impact, and would be offset by ongoing growth in the district's student body.

4.11.4 Environmental Justice

Impacts to environmental justice would be considered significant if impacts to children, minority populations, or low-income communities due to the proposed action were disproportionately high and adverse. Because all proposed activities would take place on base, and the impacts to schools would be minor as compared to changes in the school district from growth in the metropolitan area, there would not be any disproportionate impacts to minorities or children. Since no significant impacts are projected from the proposed action or the no action alternative, no environmental justice concerns have been identified.

4.12 Cumulative Impacts

Cumulative impacts are those changes to the physical and biological environments that would result from the proposed action in combination with reasonably foreseeable future actions. Significant cumulative impacts could result from impacts that are not significant individually, but when considered together, are collectively significant.

The proposed action shall comply with Federal and Colorado air quality laws and Air Force policies that are designed to minimize long-term cumulative impacts to air quality. The proposed action shall conform with the Colorado Springs maintenance plan for CO. Short-term construction emissions would not violate state or Federal standards. Increases in long-term emissions would be minimal compared to existing emissions generated at USAFA and in the Colorado Springs area. Emissions of all criteria pollutants in the metropolitan area are well below the standards (PPACG 2004) and the proposed action would not substantially increase emissions of these pollutants. Cumulative impacts to air quality would not be significant.

Impacts to soils from the proposed action and other ongoing and planned actions over the next six years (from potential erosion) would be limited by permit requirements and would not be significant. Impacts to surface water would also be limited by NPDES permit requirements and would not be significant. Impacts to groundwater would be minimal.

All activities at USAFA affecting natural resources are managed in accordance with the INRMP and applicable regulations, and any impacts from the proposed action and other activities would have limited effects to vegetation, wildlife, and protected species. None of these impacts would be significant.

Only minor impacts to human health and safety, solid waste and hazardous materials, and noise from the proposed action were identified. Impacts to these resource areas would not substantially contribute to ongoing and future impacts at USAFA or in the local area.

No impacts to cultural resources were identified. Impacts to land use and traffic would be minor over the short term and no long term impacts were identified. No significant cumulative impacts would result to these resources from the proposed action.

Only minor socioeconomic impacts were identified. These impacts would be more than offset by the continued growth in the metropolitan Colorado Springs area. Given the slight socioeconomic impacts, which would not disproportionately impact any minorities, there would not be any significant cumulative impacts to environmental justice.

Any future Federal actions that may have potentially significant impacts to the environment would be assessed in separate NEPA documents.

SECTION 5. AGENCIES CONTACTED

Informal consultation with the U.S. Fish and Wildlife Service was conducted, resulting in the requirements listed in the current version of the RFP for PMJM management; a letter documenting this consultation is provided as Appendix C. No other personal contacts were made with representatives from agencies outside of the Air Force during preparation of this EA. Sources included the documents listed in Section 7 and USAFA personnel, including Mr. Russell Hume (USAFA Privatization Program Manager), Mr. Larry Reisinger (USAFA Environmental Program Manager), and Ms. Kit Roupe (Base Community Planner).

SECTION 6. LIST OF PREPARERS

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APPENDIX A

ACRONYMS, ABBREVIATIONS, AND DEFINITION OF TERMS

ACRONYMS AND ABBREVIATIONS

AFB	Air Force base
AFI	Air Force Instruction
APEN	Air Pollutant Emissions Notice
AQCR	Air Quality Control Region
CAA	<i>Clean Air Act</i>
CCR	Colorado Code of Regulations
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act</i>
CFR	Code of Federal Regulations
CNHP	Colorado Natural Heritage Program
CO	carbon monoxide
EA	environmental assessment
DoD	Department of Defense
FAR	Federal Acquisition Regulations
FTE	full-time employee
HAP	hazardous air pollutant
HRMA	Housing Requirements and Market Analysis
INRMP	Integrated Natural Resources Management Plan
LBP	lead-based paint
MFHPI	Military Family Housing Privatization Initiative
MSA	metropolitan statistical area
NAAQS	national ambient air quality standard
NEPA	<i>National Environmental Policy Act</i>
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PCBs	polychlorinated biphenyls
PM _{2.5}	particulate matter less than 2.4 microns in diameter
PM ₁₀	particulate matter less than 10 microns in diameter
PMJM	Preble's meadow jumping mouse
RCRA	<i>Resource Conservation and Recovery Act</i>
RFP	request for proposals
SIP	state implementation plan
TLF	temporary lodging facility
USAFA	U.S. Air Force Academy
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UST	underground storage tank

DEFINITION OF TERMS

Aquifer. The water-bearing portion of subsurface earth material that yields or is capable of yielding useful quantities of water to wells.

Asbestos. A carcinogenic substance formerly used widely as an insulation material by the construction industry, often found in older buildings.

Critical habitat. (1) Specific areas within the habitat occupied by a species at the time it is listed under the *Endangered Species Act* where there are physical or biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection, and (2) specific areas outside the habitat occupied by the species at the time it is listed upon the determination by the Secretary of the Interior that such areas are essential for the conservation of the species.

Cultural resources. Remains of human activity, occupation, or endeavor, reflected in districts, sites, structures, building, objects, artifacts, ruins, works of art, architecture, and natural features that were of importance in past human events. Cultural resources consist of (1) physical remains, (2) areas where significant human events occurred, even though evidence of the events no longer remains, and (3) the environment immediately surrounding the actual resource.

Cumulative impact. The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time

Endangered species. Plant or animal species that are in danger of extinction throughout all or a significant part of their range.

Environmental assessment. A systematic environmental analysis of site-specific activities used to determine whether such activities would significantly affect the human environment, and whether an environmental impact statement is required.

Environmental baseline survey (EBS). An EBS is prepared for any property to be transferred, purchased, or leased. An EBS is based on all existing environmental information related to storage, release, treatment, or disposal of hazardous substances or petroleum products on the property to determine or discover the obviousness of the presence or likely presence of a release or threatened release of any hazardous substance or petroleum product.

Environmental impact statement. An analytical document developed for use by decisionmakers to weigh the environmental consequences of a potential action.

Erosion. Wearing away of soil and rock by weathering and the action of streams, wind, and underground water.

Groundwater. Water within the earth that supplies wells and springs.

Habitat. The environment in which an organism occurs.

Hazardous substance. A substance defined as a hazardous substance pursuant to CERCLA 42 U.S.C. Sec. 9601(14), as interpreted by USEPA regulations and the courts.

Hazardous waste. Any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the *Solid Waste Disposal Act* (42 U.S.C. Sec. 6921) (but not including any waste the regulation of which under the *Solid Waste Disposal Act* (42 U.S.C. Sec. 6901, et. seq.) has been suspended by Act of Congress). The *Solid Waste Disposal Act* of 1980 amended the *Resource Conservation and Recovery Act* (RCRA). RCRA defines a hazardous waste in 42 U.S.C. Sec. 6903 as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitation reversible, illness; or (b) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”

Intermittent stream. A stream that flows only at certain times of the year when it receives water from winter rain or melting snow.

Military Family Housing Privatization Initiative. A program to allow private sector financing, ownership, operation, and maintenance of military housing. Under the program, which was initially authorized in 1996 under the *National Defense Authorization Act* and was reauthorized in 2001 for an additional five years, DoD can provide direct loans, loan guarantees, and other incentives to encourage private developers to construct and operate housing either on or off military installations.

National Environmental Policy Act. Federal legislation enacted in 1969 that requires Federal agencies to consider environmental impacts in their decision-making process.

Noxious weed. According to the *Federal Noxious Weed Act* (FL 93-629), a weed that causes disease or has other adverse effects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

Perennial stream. A stream that flows continuously year round.

Project Owner. The private developer who would be contracted by the Air Force to implement the Military Family Housing Privatization Initiative at the U.S. Air Force Academy.

Riparian. Pertaining to or located along a stream bank or other water bodies, such as ponds, lakes, reservoirs, or marshes.

Runoff. The part of the precipitation in a drainage area that is discharged from the area in stream channels, including surface runoff, groundwater runoff, and seepage.

Threatened species. A plant or animal species that is not in danger of extinction but is likely to become so within the foreseeable future throughout all or a significant portion of its range.

Toxic Substances Control Act. This law was enacted in 1976 to give the USEPA the ability to track industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human health hazard, or can ban the manufacture and import of those chemicals that pose an unreasonable risk.

Underground Storage Tank (UST). Any tank, including underground piping connected to the tank, which is or has been used to contain hazardous substances or petroleum products and the volume of which is ten percent or more beneath the surface of the ground.

APPENDIX B

DESIGN, CONSTRUCTION, AND ENVIRONMENTAL REQUIREMENTS FROM DRAFT RFP

This is an excerpt from the USAFA Draft RFP. Pages 1-20 are not shown as they do not describe design, construction, and environmental requirements.

3.3 DESIGN AND CONSTRUCTION REQUIREMENTS

All units must be brought up to an acceptable standard through renovating or replacing inadequate, deteriorated housing and enhancing adequate housing units that are to be kept for the duration of the lease. The Government defines an acceptable house as one that meets modern standards (CAM score of 3.75 or higher). CAM scores are provided as an indication of the existing condition of representative units and are intended to be used as one tool in assessing the work necessary to accomplish Project requirements. CAM scores do not relieve Offerors of the responsibility for independently assessing the condition of existing housing as necessary to determine the work that must be accomplished to satisfy the requirements of this Solicitation. Proposed renovation and/or replacement of housing units shall be based upon an independent analysis of adequacy with respect to the open market and the requirements of this Solicitation.

3.3.1 Professional Certification

All drawings, specifications, and engineering calculations shall be certified by a licensed architect or professional engineer currently licensed by the State of Colorado.

3.3.2 Codes, Standards, and Regulations

All development, demolition, construction, and renovation of on-base housing shall be in accordance with Pikes Peak Regional Building Department, Colorado Spring Utilities and State of Colorado building codes, standards, regulations and the federal laws, as they may be amended, that would apply to like development activities outside the Base and within the County in which the Base is situated, to include 15 USCS § 2227.

3.3.3 Permits

The PO shall acquire all permits and pay all required fees.

3.3.4 Community Development Plan

The HRO shall develop a comprehensive Community Development Plan (CDP) that responds to military families' needs and reinforces the connection between the families and the community.

3.3.4.1 Site Development Design

The CDP shall integrate the housing community with the surrounding community in the site development design. The site development design shall create a network of neighborhoods within the community by creating a full range of compatible private and shared recreation and community-desired facilities, and shall provide efficient and separate vehicular and pedestrian traffic patterns. The CDP shall identify constraints such as easements, drainage, and offensive environments (i.e., blight, bright lights, and loud noises) to ensure activities within and surrounding the site are compatible. Building arrangements shall be informal, with varying setbacks to provide for best view, privacy, and variety and sufficient parking space for off-street parking. Building orientations shall provide residents with safe and convenient access to the units, as well as passive energy efficiencies. Variety within groupings, arrangements, and siting configurations of buildings is desired. The site design shall conform to varying terrain conditions to provide attractive residential patterns and attractive, pedestrian-friendly streetscapes. The site design shall provide an optimum balance of structures; common green spaces with native landscaping and ornamental highlights; recreational areas; appropriate buffer area/screening; street lighting; pedestrian and vehicular circulation; and sidewalks on both sides of the street. These site designs shall be consistent with good land use planning, practices, and economics. It shall incorporate green space, landscaping, underground utilities, and recreation areas to enhance the overall environment of the neighborhood and improve quality of life. To the extent possible, separate housing areas shall be maintained for officer and enlisted personnel.

The CDP shall identify housing areas that the PO must sever from other areas occupied by Target Tenants when a member of the general public occupies a unit (the "Severability Plan"). The Severability Plan shall also identify the source of funds for the construction of fencing and roadways needed for the PO to implement this requirement. The Government will have no responsibility for any costs associated with implementation of the Severability Plan. Severing shall be accomplished when directed by the Government, consistent with the Severability Plan.

3.3.4.1.1 Recreation and Common Areas

Open areas of the site design shall encourage creative play and learning for children and a pleasant outdoor experience for adults. The recreation and common areas shall be open for viewing with no secluded areas. Recreation facilities shall be sited where easily accessible while causing minimum disturbance to nearby occupants.

3.3.4.1.2 Landscaping

Landscaping of common areas and building unit perimeters shall be designed to enhance the aesthetic quality of each unit and surrounding neighborhood. Landscaping and earth shaping techniques shall be comparable to commercial residential property standards and sufficient to establish privacy screening and soften the visual environment. Existing trees shall be saved to the maximum extent possible. Both general site and unit landscaping shall provide year-round focus and interest, and use hardy,

predominately native, low-maintenance plant materials, and durable mulches and surfacing materials, with provisions at the units for occupant plantings. Landscaping designs shall incorporate philosophies and features that conserve water and require minimal maintenance.

3.3.4.1.3 Force Protection

The CDP shall use site design elements to minimize terrorist impacts, minimize access from surrounding communities, eliminate places of concealment, offer the most protection against crime, and discourage undesirable traffic. These elements include, but are not limited to, the following: None.

3.3.4.1.4 Conservation

The CDP shall incorporate pollution prevention, energy, and water conservation initiatives into all facilities and activities where practicable or as required by local or State regulations or guidelines. The objectives of such initiatives shall be to improve: (1) waste reduction and waste management practices; (2) energy efficiency and energy conservation practices; (3) water resource conservation and management practices (e.g., xeriscaping); and (4) recycling and reuse practices (e.g., curbside recycling).

Watering restrictions for individual units, common areas, and commercial/industrial areas must comply with restrictions and ordinances imposed by the City of Colorado Springs.

3.3.4.1.5 Administration Facility

PO must construct and maintain a management office on the site. The PO must construct and maintain a housing management office on the leased premises on a parcel other than Pine Valley Main (Parcel D). The existing Housing Management Complex will be available for use by the PO through the IDP, if proposed; however, the existing Complex must be demolished prior to the end of the six-year lease for Pine Valley.

3.3.4.1.6 Accessibility

Common areas such as walks, streets, parking and play areas, common entrances to multi-unit facilities, and support facilities must be designed and built to be accessible. "Accessible" means the common areas can be approached, entered, and used by physically handicapped people and comply with the accessibility standards set forth in Section 4 of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for Buildings and Facilities, as well as any other Applicable Laws pertaining to accessibility.

3.3.4.1.7 Urban Design Principles

The design of parcels A and C (Douglass Valley Main/New) shall incorporate urban design principles as defined in the USAFA Housing Design Guidelines that is referenced in Appendix F.

3.3.4.1.8 Resiting of SOQs

The SOQs in Parcel B shall not be resited.

3.3.4.1.9 Siting of Dean's House

The Dean's house, located in Parcel D (Pine Valley Main), shall be demolished. A new Dean's House shall be sited in close proximity to the Superintendent and Commandant's quarters.

3.3.4.1.10 National Historic Register

The Carlton House is listed on the National Historic Register and all renovation activities must be coordinated with the Colorado State Historic Preservation Office (SHPO) and USAFA.

3.3.4.1.11 Demolition Restrictions

The PO shall not demolish the Carlton House or the Otis House. Should the PO opt to build new in lieu of renovation, the PO shall return the Carlton and/or Otis Houses to the Government, at no cost, at or above the condition when the units were conveyed upon completion of the construction of the new GOQs.

3.3.4.2 Land Use Requirements and Restrictions

In addition to the above general requirements, the following specific requirements shall be met:

3.3.4.2.1 Land Use

All parcels shall be used to satisfy housing required by this Solicitation. Other approved uses shall be limited to the following uses:

- Single-family residential and multi-plex residential units with or without ancillary facilities
- Recreational facilities

3.3.4.2.2 Land Use Restrictions

The development of any resale merchandise, services, and commercial recreational operations or activities is prohibited on all parcels.

3.3.4.2.3 Density

The maximum density for new construction shall not exceed six duplex or multiplex units per acre and no more than four single-family units per acre.

3.3.4.2.4 Recreational Areas

The CDP shall provide accessible recreational facilities throughout the housing development, from the cluster to neighborhood to community level. For example, at the cluster level, provide common open space, picnic tables, benches, children's play equipment and litter receptacles for common use. For neighborhoods, provide playgrounds, common open space, sitting areas, pavilions, walkways, bikeways, jogging trails, landscaped areas with trees and other recreational activities for common use by the residents of several clusters of units. For the community housing area as a whole, provide good access to specialized recreational facilities. Wood structures are prohibited. All new equipment and surfaces shall meet or exceed the United States Consumer Project Safety Commission and ASTM standards, and existing playground equipment and recreational facilities shall be renovated or replaced to meet or exceed those standards.

3.3.4.3 Desired Community Features

The desires listed below are in descending order of importance.

- Incorporation of urban design for new construction (Ex. - garage setbacks, diverse elevations, front porches, different housing setbacks to avoid linear look)
- Covered bus shelters
- Community-wide and neighborhood-wide recreational facilities (except additional playgrounds) in the interior of family housing areas, including group picnic areas (with such amenities such as pavilions, tables, grills, etc.)
- Community center/clubhouse
- Concrete walks or asphalt trails leading to playgrounds
- Road and trail connectivity among all housing areas
- Regulation size soccer/football fields with uprights and goals

3.3.5 New Housing Construction

Design and construction of all new housing units shall provide the following:

3.3.5.1 General Requirements

Designs and construction shall comply with all applicable codes, standards, and regulations; meet basic requirements described herein; and shall be appropriate to the climate and lifestyle of the area. Designs shall provide innovative design and construction techniques conforming to local market (private sector) standards for quality housing. The local market area is defined as being within a 60-minute or 20-mile commute (whichever is greater) during peak driving conditions. Best professional judgment shall be exercised in choice of style, type, design, configuration, functional solutions, and materials. Each housing area shall have an identification sign at the entrance of each neighborhood.

3.3.5.1.1 Floor Plans

Floor plans shall incorporate orderly arrangement of functions, minimize circulation, and maximize open spaces. Designs shall provide inviting entrances, indoor/outdoor integration, and pleasing interior appearance. Kitchens shall have a modern, well-organized work area with quality fixtures, appliances, and finishes. Layout of bathrooms shall follow modern planning techniques and utilize quality fixtures. Maximized storage space is an essential element due to the mobility of Air Force families. Interior storage shall include conveniently located and adequately sized cabinets and coat, linen, pantry, bulk storage, and clothes closets. Exterior storage shall include maximized space for bikes, mowers, etc.

3.3.5.1.2 Handicap Accessibility

At least 5% of the total end-state number of housing units shall be either handicap accessible, or "readily adaptable" to be accessible, including, but not limited to, entrance ramps, bathroom grab bars and chair lifts. "Accessible" means the units can be approached, entered, and used by physically handicapped people. Modifications shall be accomplished on a high priority basis when a requirement is identified. The housing units shall comply with the accessibility standards set forth in all Applicable Laws pertaining to accessibility, together with the Fair Housing Act (FHA) and the relevant provisions of the Uniform Federal Accessibility Standards (UFAS) dealing with accessibility. In complying with said authorities, the PO shall abide by those provisions that are the most stringent. Should the PO choose

to make the premises “readily adaptable” then the PO shall bear the cost of making the housing units accessible at its sole expense.

3.3.5.1.3 Elevations

Elevation designs shall provide pleasing and interesting appearances, comparable to other quality residential developments currently being built and marketed in the area. The elevations shall be inviting with modulated facades, rooflines, and massing to provide interest. Materials and colors shall be varied to break up facades of larger structures and prevent excessive uniformity among the smaller units. The PO shall maximize diversity in appearance for all units to avoid a linear look.

3.3.5.1.4 Energy Efficiency

Design, materials, equipment, and construction methods shall reduce energy and water consumption to current Energy Star criteria. Design features shall include, but are not limited to, optimizing glass locations and areas, optimizing insulation in exterior walls, ceilings, and between adjoining units, weatherstripping throughout, and minimizing duct leakage. Attention to construction details, exterior fenestration materials, and passive solar energy systems shall be employed wherever possible.

3.3.5.1.5 Materials, Equipment, and Finishes

Materials, equipment, and finishes shall be durable, low maintenance, and functional. Choice of finishes shall be aesthetically pleasing with a richness of texture and detailing. Basic quality features include copper potable water plumbing, copper electrical wiring, dual-pane insulated windows and patio doors, storm doors with screens at main entrances, and overhead lighting in bedrooms and large closets.

3.3.5.1.6 Attached Units

Stacked units are not acceptable. No more than six dwelling units per building shall be constructed. Units shall include privacy features including, but not limited to, a Sound Transmission Class (STC) rating of 55 between living units.

3.3.5.1.7 Parking and Roads

All units shall have provisions for parking two vehicles off-street. Additional parking spaces shall be provided throughout the neighborhoods for guest parking at a rate of 1 parking space for every 2 units except for GOQ, SOQ, and Prestige units which shall have nearby guest parking available for at least four vehicles per unit. All attached units shall have a one-car garage with an automatic door opener. All single-family detached units shall have a two-car garage with an automatic door opener.

All roads and turns shall be large enough to allow moving vans, fire trucks, etc. to adequately move around the community as needed, and all roads and parking areas shall have adequate snow stacking capacity and storm drainage.

3.3.5.1.8 Privacy

All units shall have patios with screened fencing and/or landscaping to provide a private area in the rear of each unit.

3.3.5.1.9 Window Treatments

The PO shall provide window coverings (such as mini-blinds) in all units.

3.3.5.1.10 Floor Finishes

All units shall have high quality, durable, low-maintenance hard finish flooring in kitchen, informal dining area, wet areas, and high traffic areas.

All units shall have carpet in bedrooms and other living areas.

3.3.5.1.11 Appliances

All appliances shall be energy-efficient, new, and from an established manufacturer. Each housing unit shall be provided with the following items:

- Combination refrigerator/freezer (minimum 18 cubic feet (CF) for 2-bedroom units and 21 CF for 3- and 4- bedroom units)
- Built-in two-level dishwasher
- 4-burner stove with self-cleaning oven, view window, and vent hood
- Built-in microwave oven
- Garbage disposal
- Carbon monoxide detector
- Interior floor space and connections shall be provided for a full size washer, dryer (electric and natural gas connections), and
- Interior floor space and connections for a full-size freezer.

3.3.5.1.12 Equipment

All units shall be provided with high-energy efficient heating and ventilation. Central air conditioning systems shall be new and from an established manufacturer.

3.3.5.1.13 Telephone and Cable

All residential units shall be prewired for cable television and telephone jacks. Telephone systems shall be in accordance with those standards set forth by the local telephone company. Each bedroom, living area, and kitchen shall have one phone jack that can accommodate two lines and one cable outlet. The coordination of equipment locations and final design of utilities and services is subject to review by the Government.

3.3.5.1.14 Mailboxes

The PO shall provide cluster mailboxes for all units in accordance with U.S. Postal Service regulations. Individual stand-alone mailboxes shall be provided for the Senior Officer Housing, General Officer Quarters, and Prestige Family Housing units.

3.3.5.1.15 Utilities

All new utility systems shall be designed and constructed by the PO. The PO shall coordinate all tie-in locations with the Government. The PO shall provide for the installation of all utility meters. All newly constructed units must have individual electric and natural gas meters. Utilities shall be connected to a utility provider by the PO by the end of the Transition Period. The PO will ensure proper back flow protection is in place.

3.3.5.1.16 Termite Treatment

New foundations shall have soil treated for termites in accordance with state law, to include a certificate of termite treatment by the provider.

3.3.5.1.17 Exterior Features

- Easily accessible hose bibs and exterior electrical outlets on the front and rear of the house
- Hidden bear-proof trash container storage area

3.3.5.2 Specific Requirements

In addition to the above General Requirements, proposed designs and construction shall provide the following:

3.3.5.2.1 Prestige Family Housing (E-9)

Prestige housing may be detached single-family or attached multi-family type housing. Any Prestige Family Housing units constructed at USAFA, Colorado shall be completed and ready for occupancy prior to the demolition of the existing Prestige Family Housing units.

Prestige Housing shall meet at a minimum the following standards:

- A geographically separate location in base housing
- Garages with automatic door openers and storage space
- Additional off-street parking
- Larger patios than existing patios enhanced with privacy screening
- Carpeted and/or upgraded floor treatments
- Ceiling fans and upgraded miniblinds or other window treatments
- Upgraded kitchens and appliances and
- At least two full bathrooms.

Prestige Housing for all designated key and essential E-9 positions (see Section 3.4.3.3) shall have 4-bedrooms. Newly constructed units to be designated for the Command Chiefs, shall be single-family detached units at least 10% larger than the largest E-9 unit.

3.3.5.2.2 General Officer Quarters (GOQ) Standards (O-7+)

Any housing and associated improvements for GOQs (O-7+) shall be designed and constructed as single-family detached units. The design of any GOQs that are constructed at USAFA, Colorado shall be in conjunction with local architectural and climatic conditions. (Refer to Technical References, Appendix F). If any new General Officers Quarters are constructed, those units shall be completed and ready for occupancy prior to the demolition of the existing GOQs.

The PO shall provide quality finishes for the floor, architectural millwork, wall base, walls, ceilings, window treatments and coverings, light fixtures, entryway, staircases (if applicable), cabinetry, countertops, and appliances for each habitable area. The PO shall also use quality roof materials, exterior walls finishes, exterior windows and door finishes, and upscale landscaping. Should the PO choose to renovate the Carlton and/or Otis Houses, the new Dean's house and/or Superintendent's or Commandant's

quarters shall be constructed with stucco exteriors and concrete tile roofing systems similar to the Spanish Colonial Revival architectural style matching the Carlton and/or Otis Houses. Should the PO chose to construct all new homes for the General Officers, he may propose other styles commensurate with executive homes being built in the surrounding community in wooded/forested areas. All GOQs shall have the same or similar architectural style. The GOQ lots shall be no smaller than one acre. Siting shall provide the maximum amount of privacy from other General Officers as well as other housing units within the parcel. All GOQs shall be in the same parcel, collocated separate from other houses within the parcel, and provide a separate entrance(s) to ensure privacy.

In addition to standard residential telephone service, the PO shall supply and install a minimum of two telephone lines, two CATV (Cable TV) lines, 1 fiberoptic line and 1 UTP (Unshielded Twisted Pair) where available in the local community. The PO shall also supply associated terminals and distribution boxes to be designated only for Government use for each unit. The location within the units shall be the same as for the regular telephone boxes. The Government shall own and maintain the terminals, cable, and the distribution box after installation. Telecommunication standard 568A shall apply to dedicated Government cable. Refer to Table 8 for the square footage requirements for GOQ units.

3.3.5.2.3 Senior Officer Housing (O-6)

Any housing and associated improvements for Senior Officers (O-6) shall be designed and constructed as single-family detached units. If any new Senior Officer Housing is constructed, those units shall be completed and ready for occupancy prior to the demolition of the existing Senior Officer housing units. In addition to standard residential telephone service, the PO shall supply and install a minimum of two telephone lines, two CATV (Cable TV) lines, 1 fiberoptic line and 1 UTP (Unshielded Twisted Pair) where available in the local community. The PO shall also supply associated terminals and distribution boxes to be designated only for Government use for each unit. The location within the units shall be the same as for the regular telephone boxes. The Government shall own and maintain the terminals, cable, and the distribution box after installation. Telecommunication standard 568A shall apply to dedicated Government cable. The Senior Officer unit designs shall provide ample area for entertaining dignitaries and officials. Refer to Table 8 for the square footage requirements for Senior Officer Housing units.

Table 8 – Senior and General Officer Quarters

	Four-bedroom	
	O-6	O-7 TO O-10
Minimum Gross Square Feet*	2,110	2,600
Programming Benchmark Gross Square Feet*	2,520	3,330
Maximum Gross Square Feet *	2,920	4,060
*All interior spaces within the exterior faces of exterior walls of housing units with the following areas of exclusion: carports and garages, exterior bulk storage (detached), trash enclosures, porches, terraces, patios, balconies, and entrance stoops Garages: 2 car for detached homes		

3.3.5.2.4 Enlisted and Non-Senior Officer Housing (E-1 to E-8; O-1 to O-5)

Any design and construction of Enlisted and Non-Senior Officer Housing units and associated improvements shall be a mixture of multiplex and detached single-family housing. The construction of the development shall be complete within six years of project closing. The following table shows the type units per grade, broken down by square footage according to the minimum, programming benchmark, and maximum size:

Table 9 – Enlisted and Non-Senior Officer Housing

	Two-bedroom Modified		Three-bedroom			Four-bedroom		
	E-1 to E-6	E-7 to E-8 and O-1 to O-3	E-1 to E-6	E-7 to E-8 and O-1 to O-3	E-9 and O-4 to O-5	E-1 to E-6	E-7 to E-8 and O-1 to O-3	E-9 and O-4 to O-5
Minimum Gross Square Feet	1,330	1,420	1,490	1,670	1,740	1,670	1,800	1,920
Programming Benchmark Gross Square Feet*	1,480	1,670	1,630	1,860	2,020	1,950	2,150	2,310
Maximum Gross Square Feet*	1,630	1,920	1,760	2,050	2,300	2,220	2,500	2,700
* All interior spaces within the exterior faces of exterior walls and center line of party walls (in multiplex units) of housing units, with the following areas of exclusion: garages, exterior bulk storage (detached), trash enclosures, porches, terraces, patios, balconies, and entrance stoops Garages: 2 car for detached units, 1 car for multiplex family units								

3.3.5.2.5 Two Bedroom Modified Units

The PO shall design and construct two bedroom modified units with an additional room between 110-120 net square feet to provide flexible living space for residents and will be designed to serve as a family room, bedroom,

den, or playroom. The additional room shall include a closet. The two bedroom modified design shall also include an additional $\frac{3}{4}$ size bathroom between 45-50 net square feet. The $\frac{3}{4}$ bath shall include, at a minimum, a vanity sink, toilet, and shower. These square footages in Table 9 are inclusive of these room requirements.

3.3.5.3 Desired New Housing Construction Features

The desires listed below are in descending order of importance.

- Renovate Carlton House to remain the Superintendent's quarters in lieu of new construction of Superintendent's quarters
- Renovate Otis House to remain the Commandant's quarters in lieu of new construction of Commandant's quarters
- Additional square footage above the programming benchmark
- More single-family units in lieu of multiplex units
- Reduced number of dwelling units per building
- Attached 2 car garages with garage door openers
- Access to front and rear of unit through house and garage
- Additional storage located in garage
- Walk-in pantry in kitchen
- Underground, automatic irrigation systems (drip irrigation, sprinkler, etc.)
- Double ovens for E-9, O-6 through O-10
- Built-in microwave ovens
- Minimum 21 CF refrigerator with freezer and ice maker
- Side-by-side refrigerator with freezer and ice maker larger than 21CF for E-9, O-6 through O-10
- Double sinks in bathrooms
- 5-piece bath in master bathrooms (two sinks, toilet, shower and bathtub)
- Gas cooktops/ranges
- Vaulted ceilings
- Walk-in clothes closets
- Whole-house fans
- Water heaters with larger than standard 50 gal tank (or multiple) in E-9, O-6 through O-10 units
- Ceiling fans with light fixtures
- Overhead lighting in all rooms, switched at the entry door.
- Pre-wired for high-speed internet
- No fluorescent lighting in house (Garage is acceptable)
- Maximize recessed and indirect lighting
- Decorative security fences around perimeter of parcels for Otis House and the new Dean's House should the Offeror choose to renovate the Carlton

and/or the Otis Houses. Should the Offeror choose to construct all new General Officers' quarters, install decorative security fence around all new GOQs

- Low maintenance/maintenance free exteriors
- Masonry/natural stone veneers
- OSB sheeting on all exterior walls
- 2x6 exterior walls
- R-19, wall, and R-38, roof, minimum insulation values
- Exterior house wrap vapor barrier
- Insulated and finished garage walls
- Insulated garage doors
- Cased low-E glass double-pane windows
- Minimum 9' ceilings throughout
- Gas, furnace-rated, fireplaces with blowers
- Whole-house humidifiers
- Bull-nose (rounded) for drywall corners
- Knock-down texture on all walls and ceilings
- Solid wood, raised-panel doors
- Programmable thermostats
- Window in garage or window panel in garage door

3.3.6 Renovation

3.3.6.1 General Requirements for Renovation

General Requirements for New Construction (Section 3.3.5.1) shall be used to the extent possible in the renovation of existing units. If any Prestige, General Officer, or Senior Officer housing is to be renovated, the requirements specified in Section 3.3.5.2 shall be followed. Renovations to units designated as historic must be coordinated with the SHPO and USAFA.

Offerors will have the option to construct a new General Officer's quarters for the Superintendent (currently the Carlton House) and/or the Commandant (currently the Otis House) in lieu of renovation. If the PO elects new construction, the PO will maintain the Carlton and/or Otis House at or above the condition when conveyed, including, but not limited to, routine operations and maintenance (O&M), service calls, grounds maintenance, etc., until such a time as the new Superintendent's and/or Commandant's quarters is completed..

Table 10 – Renovation Size Requirements – Enlisted and Non-Senior Officer Housing

Type of Unit	Two Bedroom Modified		Three Bedroom			Four Bedroom		
Rank/Grade	E-1 to E-6	E-7 to E-8 and O-1 to O-3	E-1 to E-6	E-7 to E-8 and O-1 to O-3	E-9 and O-4 to O-5	E-1 to E-6	E-7 to E-8 and O-1 to O-3	E-9 and O-4 to O-5
Minimum Gross Square Feet*	1,220	1,300	1,370	1,530	1,590	1,530	1,650	1,760
Benchmark Gross Square Feet*	1,330	1,420	1,490	1,670	1,740	1,670	1,800	1,920
Maximum Gross Square Feet*	1,480	1,670	1,630	1,860	2,020	1,950	2,150	2,310
<p>* All interior spaces within the exterior faces of exterior walls and center line of party walls (in multiplex units) of housing units with the following areas of exclusion: carports and garages, exterior bulk storage (detached), trash enclosures, porches, terraces, patios, balconies and entrance stoops.</p> <p>Garages: 2 car for detached units; 1 car for multi-family units.</p>								

Table 11 – Renovation Size Requirements – Senior and General Officer Quarters

Type of Unit	Four Bedroom O-6	Four Bedroom O-7 to O-10
Minimum Gross Square Feet*	1,930	2,380
Benchmark Gross Square Feet*	2,110	2,600
Maximum Gross Square Feet*	2,520	3,330
<p>* All interior spaces within the exterior faces of exterior walls and center line of party walls (in multiplex units) of housing units with the following areas of exclusion: carports and garages, exterior bulk storage (detached), trash enclosures, porches, terraces, patios, balconies and entrance stoops.</p>		

The above columns in Tables 8, 9, 10 and 11, stating “Maximum” gross square footages are furnished only as information on maximum gross square footages applicable to military construction projects, and are not to be construed as an upper limitation on unit gross square footage sizes which would be acceptable under this Solicitation. Offerors may propose units larger than these maximum gross square footage sizes so long as such room patterns and floor areas are generally comparable to similar housing units in the locality concerned.

3.3.6.2 Desired Renovation Features

Desired features listed below are in descending order of importance.

- Renovate Carlton House to remain the Superintendent’s quarters in lieu of new construction of Superintendent’s quarters
- Renovate Otis House to remain the Commandant’s quarters in lieu of new construction of Commandant’s quarters
- Newly constructed units in lieu of renovated units (excluding historic units)
- Additional square footage above the programming benchmark
- More single-family units in lieu of multiplex units

- Reduced number of dwelling units per building
- Attached 2 car garages with garage door openers
- Access to front and rear of unit through house and garage
- Additional storage located in garage
- Walk-in pantry in kitchen
- Underground, automatic irrigation systems (drip irrigation, sprinkler, etc.)
- Double ovens for E-9, O-6 through O-10
- Built-in microwave ovens
- Minimum 21 CF refrigerator with freezer and ice maker in all units
- Side-by-side refrigerator with freezer and ice maker larger than 21CF for E-9, O-6 through O-10
- Double sinks in bathrooms
- 5-piece bath in master bathrooms (two sinks, toilet, shower and bathtub)
- Gas cooktops/ranges
- Vaulted ceilings
- Walk-in clothes closets
- Whole-house fans
- Water heaters with larger than standard 50 gal tank (or multiple) in E-9, O-6 through O-10 units
- Ceiling fans with light fixtures
- Overhead lighting in all rooms, switched at the entry door.
- Pre-wired for high-speed internet
- No fluorescent lighting in house (Garage is acceptable)
- Maximize recessed and indirect lighting
- Decorative security fence around perimeter of parcels for Otis House and the new Dean's House should the Offeror choose to renovate the Carlton and/or the Otis Houses. Should the Offeror choose to construct all new General Officers' quarters, install decorative security fence around all new GOQs
- Low maintenance/maintenance free exteriors
- Masonry/natural stone veneers
- OSB sheathing on all exterior walls
- 2x6 exterior walls
- R-19, wall, and R-38, roof, minimum insulation values
- Exterior house wrap vapor barrier
- Insulated and finished garage walls
- Insulated garage doors
- Cased low-E glass double-pane windows
- Minimum 9' ceilings throughout

- Gas, furnace-rated, fireplaces with blowers
- Whole-house humidifiers
- Bull-nose (rounded) for drywall corners
- Knock-down texture on all walls and ceilings
- Solid wood, raised-panel doors
- Programmable thermostats
- Window in garage or window panel in garage door

3.3.7 Conveyed Utilities and Infrastructures

The distribution systems for the electric, natural gas and water utility infrastructure as well as the sanitary wastewater collection system servicing all parcels as indicated in Technical References (Appendix F) will be conveyed to the PO. The PO is responsible for compliance with Colorado Springs Utility codes as well as Federal and state operating codes, and obtaining permits, as necessary, should the distribution systems require upgrades. Points of Demarcation are clearly indicated in the utility drawings referenced in Appendix F. Also conveyed will be all associated pavements, street lighting, and storm drainage. The utility commodity provider shall supply the utility commodity in accordance local Colorado Springs commodity tariffs, as well as applicable Federal and state statutes and regulations. All costs to install new utility services or to relocate existing utility services shall be the responsibility of the PO. All new exterior utilities installed by the PO shall be located underground.

In the event that the Base's utility system is privatized, the PO will be required to interface with the owner of the privatized utility distribution system. Easements, Rights of Access and service agreements, as necessary, may be required to ensure the delivery of utility services to the leased premises. Since the PO would no longer own the mains that traverse the leased premises, the PO would be required to install master meters at the entry and exit points for such mains.

3.3.7.1 Electric Requirements

Electricity is supplied to USAFA under the terms of an area-wide GSA contract with Colorado Springs Utilities. Refer to Section 2.3.4 and Technical References (Appendix F) for infrastructure descriptions.

3.3.7.2 Natural Gas Requirements

Natural Gas is supplied to USAFA under the terms of an area-wide GSA contract with Colorado Springs Utilities. Refer to Section 2.3.4 and Technical References (Appendix F) for infrastructure descriptions.

3.3.7.3 Water Requirements

Water is supplied to USAFA under the terms of an area-wide GSA contract with Colorado Springs Utilities. Refer to Section 2.3.4 and Technical References (Appendix F) for infrastructure descriptions.

3.3.7.4 Sewer Requirements

Sewer and wastewater treatment is supplied to USAFA by means of an on-site wastewater treatment plant. Refer to Section 2.3.4 and Technical References (Appendix F) for infrastructure descriptions. The sanitary sewer system within leased premises will be conveyed to the PO. The sewer and wastewater treatment plant may be privatized based on the outcome of the utilities privatization initiative review (see Section 2.1).

Currently, the Otis House and Unit Number 6930 in Parcel E and Unit Number 8226 in Parcel D each have an individual septic tank.

3.3.7.5 Storm Drainage Requirements

Storm Drainage is not treated.

3.3.8 Construction Management Plan

The HRO shall provide a Construction Management Plan to ensure quality control in design and construction of this project. The plan shall establish procedures for coordinating, updating, and implementing design and construction schedules. The Construction Management Plan shall address, but is not limited to, those items listed below.

3.3.8.1 Design Review Conferences

Design conferences will be held following the transaction closing for the Government's review of the PO's design plans.

3.3.8.2 Schedules

Design and construction schedules shall show an integrated Transition Plan identifying all phases of design, demolition, construction, utilities, movement of residents, etc. The Government will pay for a maximum of one Government Paid Short Distance Move per Target Tenant, if required, out of Base O&M funds, in accordance with the approved Transition Plan on the condition that the unit vacated by the Target Tenant is not reoccupied until scheduled renovation/replacement construction occurs. Subsequent non-voluntary moves by Target Tenants are paid by the Project Owner as a Project Owner Paid Short Distance Move. It is desired that Target Tenants residing in existing units be required to move no more than once. The PO may offer incentives to Target Tenants to assume responsibility for some or all of the move costs associated with a Project Owner Paid Short Distance Move. Acceptance of any incentives and the assumption of responsibility for any move requirements are at the sole discretion of the Target Tenant.

During the IDP, the PO may need to modify work schedules so as not to interfere with June Week (Cadet graduation during the first week in June), CORONA (typically a week long event held in October), and Parent's Weekend (Labor Day Weekend) activities. The proposed construction schedules for areas affected by these activities must be approved by the Government prior to the start of the construction.

3.3.8.3 Environmental Quality Controls and Procedures

Plans shall show compliance with Applicable Laws, and local environmental laws and regulations.

3.3.8.4 Pre-Construction Conference

One or more Pre-Construction Conferences shall be held to acquaint the PO, the Government and the other participants with the Construction Management Plan. At the first Pre-construction Conference, the PO shall submit the payment and performance bonds (see Section 3.3.8.8). Topics for discussion shall include, but are not limited to:

- Phasing of demolition and construction
- Provision for and location of field offices and fenced material and/or storage yards
- Utility cutovers (new and existing)
- Location for project sign to be erected by the PO
- Coordination and approval of haul routes and disposal sites
- Issuance of permits
- Site mission security and access

- Final construction schedules.
- Coordination and approval of construction impacting the utility mains

3.3.8.5 Quality Control

The PO shall maintain an effective quality control program for all construction and renovation activities throughout the transition period. The PO's quality control program shall require compliance with applicable standards and codes as well as compliance with the PO's final design and construction plans. Under the lease, the Government and/or the Government's representatives shall have full surveillance rights to ensure that construction and renovation activities are in compliance with the PO's quality control program and final design and construction plans.

3.3.8.6 Transition Plan

3.3.8.6.1 Transition Plan

The HRO shall propose a detailed transition plan that outlines the proposed schedules and actions to occur during the Transition Period. The plan shall include, but not be limited to, project development, phasing out of existing units, how the HRO intends to maintain the availability of units, how the HRO plans to structure the phasing of the utilities and services, and methodology for providing utilities and services during and after the Transition Period.

3.3.8.6.2 Unit Availability

Following the closing of the transaction, the project will enter into a Transition Period (up to six years) during which units will be demolished or renovated and new units constructed. The number of units available to military families during the Transition Period will gradually be reduced from 1,208 to 427 units. At all times during the Transition Period, at least 427 units must be available for occupancy by military families to meet the Project Demographics Criteria.

3.3.8.6.3 Utilities

With the exception of Parcel F, the PO is responsible for the operation, maintenance and upgrade of the electric, natural gas and water utility distribution systems as well as the sanitary wastewater collection system servicing the leased premises, as indicated in Technical References (Appendix F). Utility distribution systems on Parcel F will not be conveyed to the PO. Utility distribution systems on Parcel D will be conveyed to the PO but must be abandoned within six years of closing. During the 6-year lease term for Parcel D, the PO is responsible for the operation, maintenance and upgrade of the electric, natural gas and water utility distribution systems as well as the sanitary wastewater collection system servicing the leased premises, as indicated in Technical References (Appendix F).

The PO must obtain utility services from private sources. The negotiation and execution of utility service agreements to provide these utility services is the sole responsibility of the PO. All costs to relocate utility services shall be the responsibility of the PO. All new exterior utilities shall be located underground. The Government intends to convey all utilities within the housing areas (with the exception of Parcel F) unless conditions warrant retention for economic or mission reasons. The PO shall accept existing utilities systems within the leased premises in present condition and with the exception of Parcel D, perform required maintenance, repair, and capital

improvements over the duration of the 50-year lease term, or as such lease terms may be extended by agreement of the parties. Installation and maintenance of individual meters and bulk meters will be the responsibility of the PO. All new utility systems installed by the PO will be owned and operated by the PO. The PO shall accept existing utilities systems within Parcel D in present condition and perform required maintenance, repair, and capital improvements over the duration of the 6-year lease term until such time as the utility distribution systems are abandoned to the Government's satisfaction, and Parcel D is returned to the Government.

The Government currently owns the electric, natural gas and water utility distribution systems as well as the sanitary wastewater collection system for the installation. The Government intends to "wheel" the following commodities to the leased premises at no cost to the PO: electricity, natural gas and water. The leased premises is part of an integrated utility distribution system and the provision of separate utility distribution access for the provision of these services is not anticipated. During the Transition Period, the Government expects to charge the PO the non-DoD, non-federal rate for electricity and natural gas. The water and sewer service will be billed on an estimated share basis at the non-DoD non-federal rate until the PO installs master meters that measure actual usage. The PO will pay the non-DoD non-federal rate for all utilities that are used in shops, offices, empty units, etc. The PO shall also reimburse the Government for actual usage once a month via electronic funds transfer. The Government will not have individual sales agreements in place with the tenants. The PO shall be responsible for collecting all utility payments and any unpaid bills from the tenants.

In the event one or all of these systems are privatized, the privatized utilities owner will "wheel" electricity, natural gas and water to the leased premises at no cost to the PO. In such event, the PO will be responsible for negotiating commodity rates for electricity, natural gas and water. The PO should anticipate paying market rates for the commodities.

Immediately upon closing, the PO shall become responsible for reimbursing the Government for utility consumption. The PO shall install meters on Government-retained facilities within the housing areas to determine actual utility usage by those facilities. Until meters are in place on Government-retained facilities, the Government will deduct an estimated amount from the overall area utility usage for these facilities. The PO shall provide each tenant with a written estimate as to what portion of their rent is attributable to utilities.

- The PO shall install natural gas and electricity meters for each unit by the end of the Transition Period. As meters are installed, tenants shall be provided information about estimated and actual usage.
- By the end of the Transition Period, the tenants shall begin paying natural gas and electric bills to the PO based on actual or estimated consumption. Rents paid to the PO by military families shall be computed using the formula: $BAH - 110\% \text{ of Average Utilities Costs} = \text{Rent}$. However, while the Government continues to provide utilities, the PO shall be the billing and collection agent for the Government.
- During the period of time that the Government furnishes utilities, all tenants will be billed at the non-DoD non-federal rate. Current

Government utility rates are included in Utility Sales Rates (Appendix E). If the utility systems are privatized, the PO and the tenants shall pay the utility bills at market rates directly to the new utility provider.

3.3.8.7 Demolition Plan

3.3.8.7.1 General Requirement

The HRO shall establish and implement a Demolition Plan as part of the overall Construction Management Plan. The Demolition Plan shall clearly establish a phased approach to demolition of existing units (including surplus units), appurtenances, and infrastructure. All facilities and other aboveground improvements (e.g., facilities, roads, utilities, etc.) must be removed unless otherwise indicated herein.

3.3.8.7.2 Facilities

All facilities scheduled for demolition are as indicated in Existing Inventory (Appendix B). All above-surface features and basements must be removed in their entirety. Unless otherwise indicated, after demolition is complete, the PO shall grade to drain and seed all areas disturbed and/or not scheduled to receive new construction in accordance with the USAFA Revegetation Specification (refer to Appendix F) developed by the Base Natural Resource Office. Appropriate soil stabilization procedures shall be implemented to prevent erosion and sedimentation.

3.3.8.7.3 Utilities

The PO shall remove all above ground utilities with the exception of the street lights along Pine Loop. Underground utility lines scheduled for demolition may be capped and abandoned in place. All abandoned storm water and wastewater lines that run underneath roads and sidewalks must be filled with concrete prior to being capped. Unless otherwise indicated, after demolition is complete, the PO shall grade (cut and fill as necessary) to drain and seed all areas not scheduled to receive new construction. The PO shall provide "as-built" drawings to the Government showing where utilities have been capped and abandoned.

3.3.8.7.4 Roads and Fences

The PO shall completely remove all roads and fences scheduled for demolition. Unless otherwise indicated, after demolition is complete, the PO shall grade (cut and fill as necessary) to drain and seed all areas not scheduled to receive new construction.

3.3.8.7.5 Haul Routes

Prior to the commencement of any demolition, the PO shall submit all proposed haul routes to the Government for approval.

3.3.8.7.6 Disposal Site

There is not a landfill available on the USAFA installation. All debris must be hauled to a Government-approved site off the Installation. Recycling and deconstruction is highly encouraged. The PO shall research and pursue economical means of selling or recycling construction and demolition debris.

3.3.8.8 Payment and Performance Bonds

Prior to the commencement of any phase of construction, the PO shall submit to the Government and receive approval of payment and performance bonds. All payment and performance bonds, at a minimum, must: (i) be issued by a Qualified Surety; and (ii) be in a form satisfactory to the Government; and (iii) be in the amount of the total cost of construction per phase; and (iv) guarantee the performance of the construction contract.

3.3.8.9 Insurance Requirements

The PO shall ensure appropriate insurance is in place for the property as described in Appendix Q by transaction closing.

3.3.9 Certificate of Compliance

The Government or its representative will provide the PO a Certificate of Compliance once the PO has completed construction and renovation of each phase in compliance with the final design and construction plans (i.e. Final Plans) to the Government's satisfaction.

3.3.10 Controlling Provisions

In the event of any inconsistencies between the provisions of Section 3.3 and the provisions of the Appendices and Tables that are a part of this RFP, the provisions of Section 3.3 shall control.

3.4 PROPERTY MANAGEMENT

Ability to properly manage the proposed project is critical to the long-term viability of the development. The HRO's final plans identified in this Section are to be incorporated into an operating agreement that will govern day-to-day property management of the project.

3.4.1 Property Operations and Management Plan

The HRO shall establish a Property Operations and Management Plan for the privatized housing throughout the 50-year project term. The plan shall describe the approach to day-to-day operations of the housing development. The plan shall encompass on-site property management staffing and functions, occupant relations, interface with the MRC and other property management and insurance requirements. The HRO shall also include a copy of the Property Management Contract. The on-site property management office shall be staffed with professionally trained management and maintenance staff who will interface with military members and their families. The property manager shall be certified by a nationally recognized professional property management association. The fee for the property manager shall be expressed as a percentage of gross rents and shall compensate the property manager for the provision of all services.

3.4.2 Unit Occupancy Plan

The HRO shall establish a Unit Occupancy Plan to include, but not be limited to, maintaining demographics and the requirements of this Section. The Government will not guarantee occupancy of the units. However, the USAFA Housing Management Office (HMO) apprises service members of the housing options available in the community, including privatized housing. Freedom of housing choice (except where restrictive sanctions apply) shall be preserved. The PO shall compile and maintain a waiting list (See Section 3.4.2.4).

3.4.2.1 Target Tenant

Target Tenants are those members of the Uniformed Services and their families authorized to reside in USAFA family housing units.

3.4.2.1.1 Visiting Professors

For purposes of this USAFA solicitation only, Target Tenants shall also include visiting professors and their families, so long as the visiting professor is providing instruction at the Academy. For purposes of this solicitation only, units may be offered to visiting professors prior to invoking the tenant waterfall even if occupancy is above 95%.

3.4.2.2 Other Eligible Tenants**3.4.2.2.1 Vacancy Rates**

If the occupancy of the Project falls below ninety-five percent (95%) (exclusive of any housing units not available due to scheduled demolition, repair and maintenance) for any consecutive three (3) month period (calculated in accordance with accepted industry standards), the Lessee shall have the right to offer vacant housing units to Other Eligible Tenants in accordance with the Rental Rate Management Plan and the Unit Occupancy Plan. Notwithstanding the above, the Lessee, with the prior written consent of the Government, may offer vacant housing units to Other Eligible Tenants on terms stated in such written consent.

3.4.2.2.2 Advertisements

The PO is encouraged to advertise to Target Tenants. The PO shall communicate its advertising strategy for Other Eligible Tenants with the HMO. Advertising that targets the general public should commence only after 60 days of advertising to Other Eligible Tenants in categories 1 through 6 (see Table 12 below) has failed to increase occupancy to 95% and with prior written notice to the Government.

Table 12 – Priority List For Other Eligible Tenants**OTHER ELIGIBLE TENANTS (listed in descending order of priority)**

1. Other Active Duty Members of the Uniformed Services/Families
2. Federal Civil Service Employees
3. Retired Military Members/Families
4. Guard and Reserve Military Members/Families
5. Retired Federal Civil Service
6. DoD Contractor/Permanent Employees (US Citizens)
7. General Public

3.4.2.3 Housing Unit Offerings

Units shall be offered not less than 30 days prior to estimated certification of occupancy or within two days after notice of intent to vacate, whichever is applicable. Military members of the appropriate grade on the housing waiting list shall be considered by the PO to fill projected housing vacancies. The PO shall offer the unit to the appropriate grade individual at the top of the waiting list. A military member under obligation to give their current landlord 30 days notice of their intent to vacate shall be allowed to sign a lease with the PO at least 30 days prior to the effective day of the lease. Acceptance or rejection of the PO's housing unit will be the sole decision of each prospective tenant.

3.4.2.4 Waiting List Management

The PO will maintain specific waiting lists by grade/category, bedroom requirement, and type of housing requested. The waiting list will be updated bi-weekly and a copy provided to the HMO weekly for posting. The PO shall also post the list at their place of business.

3.4.2.4.1 Exhausted Waiting List for Target Tenants

In the event the waiting list for the desired category has been exhausted, the PO may elect to hold the unit vacant awaiting an appropriate ranking military member, or subject to approval by the Government, offer the unit to a military member from a higher or lower category. However, if this is done and the result is a lease with a member of a different category than originally targeted, the unit-based target rental rate for that unit will be adjusted (up or down) accordingly to match the BAH rate of the member assigned the unit, and the next vacancy from that particular category that was offered the unit will then be filled from the list of the original requirement. Example: If an E-5 is offered an E-6 unit-based house and accepts it, then the E-5 would pay an E-5 "with dependents" BAH rental rate and the next available E-5 house would be offered to an E-6 who would pay a rental rate at the E-6 "with dependents" BAH rental rate to balance the demographic requirements for the project.

3.4.2.4.2 Request for Priority Placement to Relieve Hardship

The Installation Commander or designated representative can request priority placement on the waiting list when hardship conditions exist. If accepted, the member will be offered the next uncommitted unit regardless of target category available.

3.4.2.4.3 Handicap Accessible Units

Military members who require handicap accessible units will be offered such a unit, within the target category. If a handicapped accessible unit is occupied by tenants who are not handicapped, they will be required to vacate the unit or another unit will have to be provided that would meet the needs of the handicapped tenant.

3.4.2.5 Vacancy Rates

Vacancy rates shall be determined by dividing the total number of vacant available units by the total number of available units in the required inventory. A unit shall not be considered available when: (a) it is undergoing change of occupancy maintenance, or repairs that prohibit occupancy, (b) a new unit does not meet the construction standards contained herein, as determined by the Government, (c) a renovated unit does not meet the construction standards contained herein, (d) it is within 30 days after the issuance of a Certificate of Compliance or equivalent, (e) it is under a signed lease, (f) it is an unoccupied Key and Essential's unit, (g) it is not habitable, or (h) if is excluded by agreement with the Government.

The PO will be expected to report occupancy data to the HMO on a monthly basis using a format similar to an AF Form 1326-Change of Occupancy Record or an automated replacement approved by the Government. The PO may be offered the use of the Air Force's ACES-HM work management system.

Except as noted in Section 3.4 herein, vacant units shall have a rent structure established by the PO, but the rent for any target accompanied military member will not exceed the BAH of that member unless the military member elects (with Government

approval) to rent a unit designated for a higher grade at the unit's associated BAH (except as noted in Section 3.4 herein). Any member who does "rent-up" must sign a statement that they recognize they are renting a unit above their bedroom or size requirement and are paying an amount out-of-pocket for that reason.

3.4.2.6 Change in Tenant Status

The rent for any housing unit shall be no greater than the BAH for members with dependents of the pay grade designated for the particular unit, minus the utility allowance for such housing unit except as noted in exhausted waiting list above. In the event of promotion or demotion, the member may request a move to the category of housing which is appropriate for his/her rank. A move can also be requested if the members bedroom qualification changes. In either of these cases the move would be voluntary and at the member's expense. In the event the member is no longer eligible for housing, the member shall terminate his or her lease with 30-days notice.

Tenants shall notify the PO within 30 days of change in eligibility status (i.e., dependants vacate property, loss of dependants, divorce or separation).

3.4.2.7 Retention and Termination of Assigned Housing

The Government's intent is that eligible members keep privatized housing for the duration of their tour at the installation unless there are reasons which justify reassignment, retention or termination. Requests for retention are submitted to the Installation Commander or designee for approval or disapproval.

Under normal circumstances, the eligible member will still be receiving BAH and it will be transparent to the PO. There are circumstances that retention of quarters will be approved and the eligible member will not be entitled to BAH. Under these circumstances, the eligible member will be required to pay a rental charge directly to the PO. The rental charge will equal the rental rate that the eligible member was paying before the action that made them ineligible for BAH.

Military members may voluntarily terminate privatized housing for personal reasons after fulfillment of the mandatory one-year tenancy. After the one-year tenancy, eligible members' leases will revert to a month-to-month lease.

3.4.2.8 Tenant Lease

The Tenant Lease shall include provisions for: change of occupancy cleaning; pets; in-home child care and other business operations; facility modifications by tenant; tenant regulations regarding use, storage, and disposal of environmentally hazardous materials; tenant leases/eviction/dispute resolutions in accordance with the laws of the State of Colorado; termination of the tenant lease agreement upon barment of a tenant or tenant family member from the Installation (applicable during the term of the project); military clause; itemization of fees and charges (if any) which may be imposed upon a tenant and the purpose for such; and changes in dependent or marital status. A list of clauses to be included in the tenant lease is attached as Mandatory Tenant Lease Clauses (Appendix M).

3.4.2.9 Social Visits

By Government standards, units are classified as single-family dwellings; therefore, occupancy by more than one family is not authorized. Relatives of the Tenant or the Tenant's spouse are considered normal residents of the household and are not social visitors, regardless of the period of stay.

Social visits of military personnel assigned to the Installation and civilians residing outside the commuting area are limited to 30 days. Social visits by personnel residing within the commuting area are limited to no more than two days.

3.4.2.10 Tenant Application and Vacating Procedures

The HRO shall develop a tenant application, check-in and vacating procedures, and related forms.

The PO shall not assess damages to occupants vacating units unless a baseline condition assessment was held at the time of signing of the lease and at the time of vacating the unit. Similarly, the PO shall not assess damages to occupants vacating units if the damages would otherwise be repaired or replaced through a scheduled renovation or replacement prior to occupancy by another tenant.

3.4.2.11 Tenant's Renters Insurance

- (i) **Notice of Tenant's Responsibility.** At the time of the execution of the Tenant Lease, the PO shall advise the tenant, in writing, and the tenants shall acknowledge, in writing, that neither the Government nor the PO insures the personal property and leasehold improvements of the tenant.
- (ii) **Desired Tenant's Renters Insurance for Active Duty Military Tenants.** It is desired that the PO offer Tenant's Renters Insurance to all Target Tenants. If provided, the PO shall, at its sole cost and expense, make Tenants Renter's insurance available to Target Tenants. Target Tenants shall apply through the PO for such coverage and will be insured upon acceptance for coverage by the PO's insurer. Target Tenants shall not be unreasonably refused insurance coverage.
 - a) This insurance policy may have up to a \$250.00 deductible comprehensive, named-peril replacement cost value policy with a replacement cost endorsement valued at no less than \$20,000 per eligible military member and their family. The PO is not required to pay the deductible.
 - b) The policy shall cover the tenant's personal property in the Premises including, without limitation, any property removable by the tenant under the provisions of the Tenant Lease, and all leasehold improvements installed in the Premises by or on behalf of the tenant, against loss or damage caused by the following: theft, fire or lightning, windstorm or hail, explosion, riot or civil commotion, aircraft or vehicle damage, smoke damage, vandalism or malicious mischief, loss breakage, glass breakage, falling objects, damage caused by weight of ice, snow or sleet, water damage from an accidental discharge from plumbing or HVAC system, sudden and accidental tearing apart, cracking, burning, or bulging of an HVAC, fire prevention or sprinkler system or an appliance for heating water, freezing damage to plumbing, HVAC or household appliances, and electrical surge damage.
 - c) The policy shall include \$100,000 in liability coverage for active-duty military tenants and their families.
 - d) The PO shall not be responsible for providing supplemental coverage or costs for coverage provided by a different policy.

3.4.3 Rental Rate Management Plan

The HRO shall establish a Rental Rate Management Plan which shall include, but not be limited to, the requirements of this Section.

3.4.3.1 Rental Rates for Accompanied Active Duty Military Tenants

Unit rents will be fixed by unit type and shall not exceed the BAH "with dependent" rate of the military grade for which the particular unit was designated less a utility allowance as defined herein (unless otherwise approved by the Government in accordance with Section 3.4 herein). A Rental Rates Schedule shall be developed based on the number of units, grades, and unit types found in Table 4. Rents shall include water, sewer, refuse collection, ground maintenance for common areas, and operations and maintenance of the project. Although BAH is paid in arrears, rent will be paid on the first day of the month to which such rent applies. Utility meters will be installed as required in Section 3.3.8.6.3. During the Transition Period, the PO will pay all member utilities. While the PO is paying all the utility costs, the member will surrender his or her entire BAH to the PO. In these cases, rent shall not exceed BAH. The PO shall grandfather current occupants from paying out-of-pocket expenses for residing in a unit targeted for a higher grade (e.g., an E-5 living in an E-6 unit) by setting rents, including utilities, for occupied units at the time of transaction closing at no higher than the BAH rate of the current occupant. At the end of the Transition Period, residents will begin paying for electricity and natural gas usage and the rent will be adjusted to be no higher than the BAH less utility allowance charges detailed in Section 3.4.3.7.

3.4.3.2 Rental Rates for Other Eligible Tenants

Rents for unaccompanied military members shall not exceed the BAH "with dependent" rate of the lowest active duty military family eligible to lease the unit. Rents for Other Eligible Tenants shall not be less than the highest rate offered to Target Tenants for those units within the immediately preceding 30 days.

3.4.3.3 Requirements for Designated Quarters

Incumbents of certain key and essential positions are required to reside in specific privatized housing units ("designated quarters") as a matter of military necessity or as a condition of employment. The positions are identified by the Government and usually include Special Command Positions (SCP) and Command Positions.

The PO shall provide five units for designated quarters subject to the Government's prior written approval. The specific address and position information required will be released by the Government to the PO under separate cover.

3.4.3.4 Requirements for Key and Essential Personnel

There are 25 Key and Essential Personnel, of which five personnel are assigned to designated units.

The Installation Commander determines which positions are considered Key and Essential. Specific quarters are not designated for Key and Essential positions. However, as determined by the Installation Commander, certain areas or groups of houses may be reserved for specific Key and Essential Personnel. Quarters in these areas shall not be held vacant for greater than ninety (90) days awaiting the arrival of Key and Essential Personnel. Key and Essential Personnel who do not have a unit available to them upon arrival to the Base move to the top of the appropriate waiting list.

When members are assigned to Special Command, Command, or Key and Essential Positions and are single or not accompanied by family members, and there are no other

on-base facilities (i.e., Unaccompanied Officer Quarters (UOQ)), they may be assigned privatized family housing. Some of the identified positions and personnel may be single or not accompanied by family members. In the event these members receive BAH at the "without dependents" rate or are not accompanied by dependents, then the members shall pay rent at the BAH "without dependents" rate. The PO shall accept rent at the "without dependent" rate BAH less a utility allowance.

3.4.3.5 General Officer Quarters (GOQ) and Special Command Positions (SCP)

Projects may contain designated units as GOQs and SCPs. GOQs and SCPs receive close scrutiny from both the private and public sectors, with special congressional interest. GOQs follow the same assignment and vacancy criteria described in the Requirements for Designated Positions and Key and Essential Personnel Section above.

If required, the Government may authorize and fund permanently installed or removable communication and antiterrorism/force protection requirements in the development.

3.4.3.6 Utility Allowance

The utility allowance is intended to enable occupants to pay the cost of utilities (electricity and natural gas) directly to the utility providers. The PO shall pay for water, sewer, and refuse collection. The monthly utility allowance is calculated as 110% of estimated average utility consumption multiplied by actual utility rates. Estimated average utility consumption shall be calculated for each unit type. Detailed calculations of these estimates shall be provided for evaluation by the Government.

3.4.3.7 Rent and Utility Allowance Changes

It is the Government's intention that when a tenant remains in the same unit the tenant's rent shall be adjusted by the PO only once a year, based upon annual changes in the BAH. The PO shall incorporate provisions into the tenant lease to ensure a single, annual rent adjustment due to changes in BAH and utility allowances. The tenant will be responsible for contacting his or her local military pay office to change his or her allotment based on annual changes in the BAH.

BAH Changes. The Government generally publishes these changes in December or early January of each year.

Utility Allowance Changes. The PO shall submit to the Government its calculations for the monthly utility allowance for each unit type for Government approval by the first of December each year. For example, the consumption provided on December 1, 2001, and the utility rates in effect on December 1, 2001, shall be used to set the utility allowance for 2002. During the Transition Period, calculations and supporting documents from the following Web site shall be used to determine the consumption: <http://www.homeenergysaver.lbl.gov>. For the first five years after the end of the Transition Period, calculations and supporting documents will be based on a five year rolling average of actual consumption and the consumption from the above referenced website. For the sixth year and all subsequent years, the consumption will be determined by the previous five-year moving average annual consumption. The estimated consumption component of the utility allowance can also change when any of the following occur:

- Major renovations
- Energy saving devices and/or appliances are installed, removed, or otherwise affected

- Average actual annual consumption for any unit type is 15% greater or less than the estimated annual consumption for that unit type.

3.4.3.8 Rates for Government Supplied Utilities

If the Government furnishes utilities, all tenants will be charged the non-DoD non-federal rate. Current utility rates are included in Utility Sales Rates (Appendix E). In this instance, the PO shall read utility meters and bill tenants directly. The PO shall pay a single bill to the Government monthly. In the event any or all of the utilities are privatized and no longer owned by the Government, the PO and/or tenants will pay the applicable utility provider's rates which may differ from the non-DoD rates.

3.4.3.9 Tenant Security Deposits

No tenant security deposits other than pet deposits may be required from Target Tenants. Target Tenants shall not be charged for any move-out expenses resulting from ordinary wear and tear of a housing unit. The PO may require security deposits and/or fees from Other Eligible Tenants for damage, cleaning, and pets. The total of permitted deposits and fees shall not exceed the monthly rent in effect at the time the Tenant Lease is signed. All fees and deposits must be disclosed to the Government. Retention of tenant deposits and notices relating to them must comply with local and state laws.

3.4.4 Facilities Maintenance Plan

The HRO shall establish a Facilities Maintenance Plan for the housing units and other facilities (including all common grounds, units, and support facilities). The PO shall maintain housing in such a manner that the development will prove attractive to military members and their families and ensure high occupancy rates over the term of the project. The following types of maintenance are the minimum that shall be addressed in the Facilities Maintenance Plan:

- Service Response (Emergency, Urgent, and Routine)
- Nationally certified or accredited management staff, in addition to certified property manager
- Preventive Maintenance and Repair
- Change of Occupancy Maintenance (COM)
- GOQ Maintenance
- Vacant Units Maintenance and Repair
- Infrastructure (Streets and Utilities) Maintenance and Repair
- Grounds Maintenance (individual yards, common and recreational areas)
- Tree and shrub maintenance at units including vacant units (foundation plantings) and common areas (including tree trimming, dead tree/plant replacement)
- Noxious Weed Management
- Curbside Refuse Collection, Bulk Trash (Christmas trees, etc.) Collection, and Recycling
- Snow and Ice Removal on all streets and main roads in leased premises
- Entomology and Pest Control
- Lockout and Key Services
- Safety and Security
- Personnel (Property Manager and On-call Emergency personnel and plan)
- Quality Control (procedures and customer feedback).

3.4.4.1 Desired Facility Maintenance Features

Desired features listed below are in descending order of importance.

- Snow removal on common sidewalks and unit driveways

3.4.4.2 Maintenance Management

The Plan shall provide a local maintenance manager responsible for work performance. The maintenance manager or alternate shall be available by telephone for 12 hours a day Monday-Sunday between the hours of 6:00 a.m. and 6:00 p.m. The maintenance manager shall have at least three (3) years of multifamily development maintenance management experience.

3.4.4.3 Quality Control

Quality control provisions shall be provided for evaluation and review. The provisions shall include, but not be limited to, a description of the inspection system to cover all maintenance services, frequency of inspections, control procedures, and methods for identifying and preventing defects in the quality of service performed. The provisions shall also describe the type of records to be maintained for document inspections and corrective or preventive actions and proposed maximum response times and completion goals for each maintenance area.

3.4.4.4 Service Responses

The PO shall be available to respond to service calls at a minimum during the hours indicated below in Table 13. Minimum service responses by category are shown in Table 14 below.

3.4.4.4.1 Emergency Service

Emergency service shall consist of correcting failures or deficiencies that constitute an immediate danger or health hazard to occupants or threaten severe property damage. If the breakdown, stoppage, or loss of a critical system or equipment may endanger life or property, a highest priority response shall be assigned to the problem. Examples of emergency service calls include breaks in water, wastewater, or natural gas lines, natural gas leaks, equipment failures, utility outages, and doors and windows that cannot be secured. Emergency responses may be downgraded after an initial response mitigates the immediate hazard and the threat to life, health, or safety.

3.4.4.4.2 Urgent Service

Urgent service calls shall consist of correcting failures that do not immediately endanger the occupants or threaten damage to property, but that would soon inconvenience and affect the health and well-being of the occupants.

3.4.4.4.3 Routine Service

Routine service includes maintenance or repair actions that do not meet the criteria of an emergency or urgent service call. The service response – hours of operation and response and completion times are shown below in Tables 13 and 14 respectively.

Table 13 – Service Responses – Hours of Operation

CATEGORY	AVAILABILITY
Emergency Service	7 days a week, 24 hours a day
Urgent Service	7 days a week, 12 hours a day, between 6 a.m. and 6 p.m.
Routine Service	Monday – Friday, 12 hours a day between 6 a.m. and 6 p.m.

Table 14 – Service Responses – Response and Completion Times

CATEGORY	RESPONSE TIMES (a)	COMPLETION TIMES
Emergency Service	One Hour	One Day
Urgent Service	24 Hours	5 Days
Routine Service	5 Calendar Days	15 Calendar Days
(a) Response time includes contacting resident, appraising the problem, and scheduling a solution.		

3.4.4.5 Recurring and Preventive Maintenance and Replacement

The PO shall accomplish recurring and preventive maintenance and replacement on all development assets to ensure that the development remains attractive and functionally sound throughout the term of the project. The PO shall perform maintenance, repair work, and cleaning to meet commercial standards and manufacturers' written recommendations; and conform to Applicable Laws.

3.4.4.6 Change-of-Occupancy Maintenance (COM)

The PO shall provide COM on housing units to repair any damaged or inoperable components, to ensure all components are in good working order, and to ensure units are aesthetically pleasing and clean. During change of occupancy, the PO shall ensure all equipment is in proper working order, paint interior and exterior of units where necessary, replace damaged floor covering, and ensure complete cleaning. The Government shall review and approve COM standards prior to implementation by the PO.

3.4.4.7 GOQ Maintenance

Maintenance of GOQs is an area of significant concern for the United States Air Force. The Air Force requires that every Government-owned GOQ in the active inventory report their maintenance, repair, and minor alteration costs on a quarterly and annual basis. Statutory constraints require that any expenditures exceeding \$35,000 per year be reported to the Congress.

For privatized GOQs these statutory requirements do not apply; however, the PO shall follow a "prudent landlord" concept, accomplishing work to keep the quarters comfortable and protect the significant investment in these homes. The HRO shall prepare a GOQ appendix to the Capital Repair and Replacement Plan that details all programmed maintenance repair, service, and minor alteration requirements as described in the Individual Facility Profile (IFP). The IFP will be available for review at the Installation. Upon the completion of any program work during the annual execution of the Capital Repair and Replacement Plan, the PO shall validate the program and actual costs and report any cost overruns to the HMO. The HMO shall provide formats associated with cost reporting and validation.

The PO will not start any work associated with GOQs until it receives written approval from the HMO. The PO is responsible for monitoring costs and providing quarterly reports on expenditures covered under Section 3.2.5.1. Government material support for privatized GOQ and SCP housing is limited to furnishings that do not require fixed installation. The PO will not be responsible for furnishing the GOQ and SCP housing.

3.4.5 Capital Repair and Replacement Plan

The HRO shall establish a Capital Repair and Replacement Plan for long-term major repair and replacement requirements to ensure the site development and housing are maintained in quality condition throughout the duration of the agreement. This plan shall include, but not be limited to, site conditions such as pavement repair, utility upgrades (utility components owned and operated by the PO), landscaping improvements, and recreational equipment. It shall also include repair and replacement of housing unit components or systems such as roofing, equipment, and interior upgrades. Capital Repair and Replacement Plan shall be demonstrated to be in accordance with guidelines from the current National Association of Home Builders (NAHB) Housing Facts, Figures, and Trends publication, manufacturers' recommendations, other recognized industry standards, or other Applicable Laws.. The plan shall be supported with funds from the Replacement Reserve Account.

3.4.6 Reinvestment Plan

The HRO shall provide a Reinvestment Plan that will protect and enhance the Property through reinvestment in the Property in the form of quality-of-life improvements which will directly benefit the property residents. It shall ensure the development continues to meet prevailing market standards for similar housing developments while continuing to provide safe, quality, affordable, well-maintained housing in a community where military families will choose to live. It shall also provide for approved minor alterations, services, and improvements for all quarters, including conversion and/or alterations to existing two bedroom units to match new two bedroom modified standards as described in Section 3.3. The Reinvestment Plan shall also provide for out-year modernization and upgrades. With the exception of the out-year modernization and upgrade requirement, the plan shall be fully supported with funds from the Reinvestment Account. Sources of funds shall be identified for the out-year modernization and upgrade requirement. The cost and scope of the proposed reinvestment shall be fully described along with the fixed ceiling percentage of profit on the execution of all Reinvestment Plan-related work.

3.4.7 Historic Preservation Plan

The HRO shall establish a Historic Preservation Plan for the long-term preservation of the historic property at USAFA. There is no Memorandum of Agreement (MOA) between the Government and the SHPO. The PO must assist with negotiations between the Government and the SHPO and must execute the MOA between the SHPO and the Government as an invited signatory prior to closing.

3.4.8 Environmental Management Plan

The HRO shall prepare and implement an Environmental Management Plan for each installation to ensure compliance with environmental requirements. The Environmental Management Plan shall address, but is not limited to, compliance with environmental laws and regulations, asbestos-containing material, lead-based paint, radon, underground storage tanks, soil contamination, spill prevention, hazardous materials and waste, storm water construction permit compliance, storm water post-construction design, dust control, noise control, pest control, environmental permits and regulatory compliance, recycling and waste minimization, sewage overflows, water and wastewater.

3.4.9 Desired Property Management Features

Desired features listed below are in descending order of importance.

- Full-time live service call response by telephone

- Scheduling of routine service call maintenance after normal duty hours to accommodate occupant's work schedule
- Tenant's Renters Insurance

3.4.10 Municipal Services To Be Provided By The Government

The Government will provide fire, law enforcement services, and other emergency services to housing located within the Installation boundaries under proprietary or exclusive federal jurisdiction. Level of service will include emergency response, force protection, and preventative maintenance support. These costs shall be reflected in the operating budget. The PO will reimburse the Installation's service agency for all actual costs incurred for this level of service. The Government will provide 120 days prior to the start of the project fiscal year their annual estimate for the aforementioned services and will validate the actual charges versus the estimate. The Government's current annual estimate for the aforementioned services is \$26 per unit. On or before September 1st of each year, the Government shall provide written notice to the Lessee of the amount of the Fire and Police Services Payment for the fiscal year commencing October 1st of such year, which amount shall be payable in four quarterly installments on the tenth (10th) day of the first month of each such quarter of such fiscal year. The Government requires payment to be made by electronic funds transfer.

3.5 ENVIRONMENTAL COMPLIANCE

The PO shall comply with Applicable Laws, and local environmental laws and regulations. The PO shall be responsible for all fines and assessments by regulators for the failure to comply with these standards. The PO shall reimburse the Government for any civil or criminal fines or penalties levied against the Government for any environmental, safety, and occupational health infractions caused by activities of the PO and/or parties associated with the PO. Additionally, the PO shall reimburse the Government for the cost of any environmental restoration undertaken by the Government to clean up releases caused by the activities of the PO and/or any parties associated with the PO. The HRO shall provide a narrative disclosing if any parties associated with the HRO's proposal have received a fine or Open Enforcement Action (OEA) from any local, state, or federal environmental agency (for any family housing development project). If fines or OEAs have been received, the HRO shall provide copies of official notices, descriptions of corrective actions taken, and proof of payment, waiver, or withdrawal of fine and satisfactory compliance.

3.5.1 Asbestos Containing Material (ACM)

The PO is responsible for inquiring as to whether the Government has records of the location, type, quantity, and characteristics of asbestos in any family housing unit or other leased structures prior to demolition, renovation, maintenance, repairs, or construction that may disturb suspect materials. If the Government does not have adequate records to substantiate the status or presence of ACM, the PO is required to obtain the necessary confirmatory samples and obtain analysis by a State of Colorado certified laboratory for the analysis of bulk materials for asbestos. The Government shall not be responsible for any handling, removal or containment of asbestos or ACM, or to the extent consistent with applicable law, for any liability related thereto. The PO will perform any and all asbestos work in accordance with all Applicable Laws. PO personnel will be trained and certified as required in accordance with the State of Colorado's asbestos administrative code. The PO shall be responsible for removal and disposal of all ACM in the improvements on the Leased Premises and shall incorporate an asbestos disposal plan in the plans for demolition of the improvements to be submitted to the Commander. The asbestos disposal plan will identify the proposed disposal site for the asbestos. Removal and disposal of ACM must be carried out in strict compliance with all applicable federal, state, and local laws, rules, regulations, and standards.

3.5.2 Lead-Based Paint (LBP)/Lead-Based Paint Hazards (LBPH)**3.5.2.1 Inquiry**

The PO is responsible for inquiring as to whether the Government has records of the location of LBP in any family housing unit or other structure prior to start of work which might disturb such materials. If additional information is required to substantiate the status or presence of LBP, it shall perform, at its sole expense, such necessary sampling and analysis in accordance with applicable law.

3.5.2.2 Management and Abatement

In its day-to-day management of housing units, the PO shall comply with the HUD guidelines for caring for and maintaining existing LBP in housing. This is critical to protect the health and safety of residents in those occupied units that have not yet been demolished or renovated. The PO will ensure that housing renovation results in the management of any LBP and in the abatement of all LBPH (as that term is used in the Residential Lead-Based Paint Reduction Act of 1992) in those housing units. The PO shall abate LBPH at the point of a change in occupancy if there is one, or if there is no change of occupancy, at the time of a renovation/demolition scheduled in the transaction, or on a more aggressive schedule if the PO desires.

3.5.2.3 Tenant Treatment

The PO will treat all residents as if they were tenants for the purposes of 40 C.F.R. § 745. For example, the PO will provide the "Protect Your Family from Lead in Your Home" pamphlet (available from the Environmental Protection Agency) to any residents residing in homes that contain LBP.

3.5.3 Radon

The PO will take all necessary measures consistent with the Air Force Radon Assessment and Mitigation Program (RAMP) to ensure that levels of radon within all housing units are lower than the Air Force action level of 4 Pico curies per liter. In all new construction and renovation, the PO shall implement prudent radon reduction measures consistent with the latest building practices.

3.5.4 Underground Storage Tanks (USTs)

The PO is responsible to inquire whether the Government has Environmental Baseline Survey (EBS) records of the location and the number of unregulated heating-oil USTs located in the Leased Premises. Should unregulated heating-oil USTs be located such that demolition, renovation, new construction, grading, excavating, land improvements, or other site construction activities will disturb such items, then the PO shall be responsible for removing the USTs prior to construction activities, beginning in the immediate area where the USTs will be disturbed. Any soil contamination testing associated with the tanks, and any remediation of any underlying petroleum-contaminated soil found, shall be the responsibility of the Government. All workers shall be briefed by the PO on the potential presence of petroleum-contaminated soil.

3.5.5 Soil

The Environmental Baseline Survey (EBS) did not include soil testing. To the best of the Government's knowledge, Chlordane, (a termiticide), has not been applied on USAFA in the recent past and is not expected to be found in the soil. Lead-based paint does exist within the housing units, as described in the EBS and subsequent Environmental Assessment (EA), but no sampling/analysis for lead of the soil surrounding the conveyed facilities has been accomplished. The PO shall not remove any soil from the site without appropriate environmental testing and written consent from the Installation Commander. The PO will take care during demolition and renovation to disturb as little soil as possible. Of particular concern would be earthmoving

activities such as grading or leveling. Prior to occupancy of renovated or newly constructed housing where soil was disturbed, the PO will be responsible for having a competent risk assessor carry out a representative sampling of soil immediately surrounding the housing, gardens, and likely children's play areas. If the results exceed screening values of Chlordane and Lead set under the Federal and state law, the PO will conduct a complete risk assessment. The results of screening sampling or a risk assessment will be provided to the Government for approval prior to occupancy. Because the proposed action involves the disturbance of soil in this parcel of land, the PO shall brief all workers on the potential presence of chlorinated pesticides and lead. The PO shall review state and local standards and screening values, and if such standards and values are more stringent, then the PO shall adhere to the more stringent standards and values.

3.5.6 Natural Resources

The PO shall manage all native and semi-native areas in a manner consistent with the USAFA Integrated Natural Resources Management Plan referenced in Appendix F.

3.5.7 Threatened Species

Areas within and adjacent to the leased premises are inhabited by the Preble's Meadow Jumping Mouse, a federally-recognized threatened species. The PO shall manage all designated mouse habitat within the leased premises in a manner that complies with the Endangered Species Act and the Base's Conservation Agreement and Management Plan for the Preble's Meadow Jumping Mouse. All activities that may impact mouse habitat, either directly or indirectly, shall be coordinated with the Base's Natural Resources Office. The PO shall also be responsible for conducting any necessary Endangered Species Act consultations with the U.S. Fish and Wildlife Service, including all activities related to demolition, site restoration, renovation, new construction, and property management.

APPENDIX C

LETTER REGARDING ONGOING INFORMAL CONSULTATION WITH U.S. FISH AND WILDLIFE SERVICE



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Colorado Field Office
55 Parker Street, Suite 600
Lakewood, Colorado 80015

TO: Mr. Richard O. Stone, Sr.
Commander, Civil Engineer Squadron
5100 Edgerton Drive, Suite 400
USAF Academy, CO 80840-2400

FROM: Susan C. Turner

TO: Mr. Richard O. Stone, Sr.
Commander, Civil Engineer Squadron
5100 Edgerton Drive, Suite 400
USAF Academy, CO 80840-2400


FROM: Susan C. Turner

The Colorado Field Office has been consulting intimately with the Air Force Academy regarding the **housing privatization project at the Academy**. The project has gone very well, and the Service has a good understanding of the potential impacts to Public Law 101-618. We are confident that future ESA consultation can be conducted with the privatization developer in coordination with the Air Force Academy with equal success.

We look forward to further consultations, as the need arises.

For can be of further assistance, please contact Adam Mortal at my staff at (303) 733-7300 or e-mail adam.mortal@fws.gov.

Sincerely,


Susan C. Turner
Colorado Field Supervisor

MAIL ROOM
U.S. DEPARTMENT OF THE INTERIOR

10 MSG

Suspense Slip

Date: 12 Jul 2006

Control #: SSS200600232

To: 10 MSG

Subject: environmental Assessment (EA) for Housing Privatization

Action:

Remarks: To 1st Lt Willett on 12 Jul 06 at 1722 (BJED) //

Suspense Date:

Coordination

POC/Date	Remarks
CLE 13 July	to CD
CD 15 July	Return to CE for Resolution/concurrence or nonconcurrence of IA comments - JAM
16 July CE 20 Jul	Back to MSG
20 July ^{CLE} to CD	to CD for Review
21 July CD	to CC for Review
1 Aug CLE	to ABLW
CCEA 28 Aug 06	Sent to CE final epc

Hume Russell J Civ USAFA/CECE

From: Hume Russell J Civ USAFA/CECE
Sent: Tuesday, August 15, 2006 12:40 PM
To: Butala Keith L Civ 10 CES/DCE
Subject: Response to ABW/CC Comment on USAFA MFHPI EA

Sir:

The package with the Environmental Assessment (EA) for the Family Housing Privatization Initiative was returned requesting an e-mail addressing the "data gap" on the signature page.

The data gap addressed on the signature page simply acknowledges that there are uncertainties because we do not know what the Developers will propose. The requirements from the Request for Proposal (RFP) that are addressed in the EA include 19 new homes, 316 renovations, 92 as-is homes. These are the minimum requirements. The developer may build more new, do less renovations, build trails, recreation centers, etc. Without his proposal, and host of plans required, such as the Environmental Plan that will not be available until after the Highest Ranked Offeror (HRO) is picked, this gap in knowledge exists. The Developer, in order to secure a loan, will have to do an independent Environmental Assessment with his plan prior to closing/award of the project. He will use our EA as guidance, but must prepare his own that will fill in these gaps.

I hope this has explained this well enough.

V/R,

Russell Hume

Housing Privatization Project Manager
10 CES/DCEH
Work: 719-333-8439
DSN: 333-8439
Pager: 719-236-1570
russell.hume@usafa.af.mil

8/15/2006



DEPARTMENT OF THE AIR FORCE

10TH MISSION SUPPORT GROUP

USAF ACADEMY COLORADO

MEMORANDUM FOR HQ USAFA/JA

FROM: 10 CES/DCEH

SUBJECT: Review of USAFA Housing Privatization Environmental Assessment

1. In response to USAFA/JA's (Mr. Bush) comment on the USAFA Housing Privatization Environmental Assessment, section 4.8, page 47, the word "will" in the first sentence of the second paragraph has been replaced by "may".
2. In the Request for Proposal, the Offerors are given the option of renovating the Carlton House to remain the home of the Superintendent or constructing new quarters. In conversations with the Air Force Housing Privatization Program Office Legal, Ms. Jennifer Droz, there exists the possibility that the Memorandum of Agreement (MOA) with the State Historic Preservation Office (SHPO) may not be necessary should the Successful Offeror opt to construct new and, hence no renovation performed on the Carlton House.
3. Should the Successful Offeror choose to renovate the Carlton House, a MOA shall be prepared in accordance with 36 CFR Part 800.6 and Air Force precedence (Hill AFB, Scott AFB).
4. Iterations of a MOA have been shared with SHPO and they are aware of the situation and have done similar MOAs with Federal Agencies on transfer of ownership of historic properties.

A handwritten signature in black ink, appearing to read "Russell J. Hume", is positioned above the printed name.

RUSSELL J. HUME

Housing Privatization Project Manager

Attachments:

1. 36CFR800.5
2. 36CFR800.6

10 July 2006

USAFA JA (Environmental) Comment:

The MFHPI Environmental Assessment (paragraph 4.8, Cultural Resources) indicates that a Memorandum of Agreement between USAFA and the State Historic Preservation Office (SHPO) will be prepared with the Project Owner as a third-party signatory. The EA also indicates that all renovation actions with respect to the Carlton House (if it is retained by the PO) will be coordinated with both the SHPO and USAFA. Neither of these statements may be correct.

In the event that NHPA listed or eligible property is permanently transferred from USAFA to the Project Owner, there is little reason to include USAFA in NHPA requirements. A better approach would be to have the Project Owner conclude either a Memorandum of Agreement or a Programmatic Agreement with the SHPO concerning covered property (much like USAFA has a PA with the SHPO on the Carlton House). There may also be little basis to have USAFA coordinate on all changes to the Carlton House, since it would be owned by the Project Owner (renovation coordination requirements assume the PO will not build new housing for the Superintendent).

Finally, the statement "under the proposed action, renovation and construction of houses must follow strict architectural guidelines to fit in with the existing character of USAFA" is probably overbroad and incorrect. With the exception of the Carlton House, USAFA housing has been determined to be "non-contributing" property in terms of NHPA. Therefore, with the exception of view shed considerations, the NHPA probably does not govern the manner in which existing housing is renovated or new housing is built – although USAFA may favor designs which blend in with the natural environment.

A handwritten signature in black ink, appearing to read "B. X. Bush", enclosed within a large, loopy oval shape.

BRIAN X. BUSH
Attorney Advisor

[Code of Federal Regulations]

[Title 36, Volume 3]

[Revised as of July 1, 2005]

From the U.S. Government Printing Office via GPO Access

[CITE: 36CFR800.5]

[Page 92-94]

TITLE 36--PARKS, FORESTS, AND PUBLIC PROPERTY

CHAPTER VIII--ADVISORY COUNCIL
ON HISTORIC PRESERVATION

PART 800_PROTECTION OF HISTORIC PROPERTIES--Table of Contents

Subpart B_The section 106 Process

Sec. 800.5 Assessment of adverse effects.

(a) Apply criteria of adverse effect. In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified historic properties, the agency official shall apply the criteria of adverse effect to historic properties within the area of potential effects. The agency official shall consider any views concerning such effects which have been provided by consulting parties and the public.

(1) Criteria of adverse effect. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a

[[Page 93]]

historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

(2) Examples of adverse effects. Adverse effects on historic properties include, but are not limited to:

(i) Physical destruction of or damage to all or part of the property;

(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;

(iii) Removal of the property from its historic location;

(iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

(3) Phased application of criteria. Where alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process in applying the criteria of adverse effect consistent with phased identification and evaluation efforts conducted pursuant to Sec. 800.4(b)(2).

(b) Finding of no adverse effect. The agency official, in consultation with the SHPO/THPO, may propose a finding of no adverse effect when the undertaking's effects do not meet the criteria of paragraph (a)(1) of this section or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the SHPO/THPO to ensure consistency with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

(c) Consulting party review. If the agency official proposes a finding of no adverse effect, the agency official shall notify all consulting parties of the finding and provide them with the documentation specified in Sec. 800.11(e). The SHPO/THPO shall have 30 days from receipt to review the finding.

(1) Agreement with, or no objection to, finding. Unless the Council is reviewing the finding pursuant to paragraph (c)(3) of this section, the agency official may proceed after the close of the 30 day review period if the SHPO/THPO has agreed with the finding or has not provided a response, and no consulting party has objected. The agency official shall then carry out the undertaking in accordance with paragraph (d)(1) of this section.

(2) Disagreement with finding. (i) If within the 30 day review period the SHPO/THPO or any consulting party notifies the agency official in writing that it disagrees with the finding and specifies the reasons for the disagreement in the notification, the agency official shall either consult with the party to resolve the disagreement, or request the Council to review the finding pursuant to paragraphs (c)(3)(i) and (c)(3)(ii) of this section. The agency official shall include with such request the documentation specified in Sec. 800.11(e). The agency official shall also concurrently notify all consulting parties that such a submission has been made and make the submission documentation available to the public.

[[Page 94]]

(ii) If within the 30 day review period the Council provides the agency official and, if the Council determines the issue warrants it, the head of the agency, with a written opinion objecting to the finding, the agency shall then proceed according to paragraph (c)(3)(ii) of this section. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part.

(iii) The agency official should seek the concurrence of any Indian tribe or Native Hawaiian organization that has made known to the agency official that it attaches religious and cultural significance to a historic property subject to the finding. If such Indian tribe or Native Hawaiian organization disagrees with the finding, it may within the 30 day review period specify the reasons for disagreeing with the finding and request the Council to review and object to the finding pursuant to paragraph (c)(2)(ii) of this section.

(3) Council review of findings. (i) When a finding is submitted to the Council pursuant to paragraph (c)(2)(i) of this section, the Council

shall review the finding and provide the agency official and, if the Council determines the issue warrants it, the head of the agency with its opinion as to whether the adverse effect criteria have been correctly applied. A Council decision to provide its opinion to the head of an agency shall be guided by the criteria in appendix A to this part. The Council will provide its opinion within 15 days of receiving the documented finding from the agency official. The Council at its discretion may extend that time period for 15 days, in which case it shall notify the agency of such extension prior to the end of the initial 15 day period. If the Council does not respond within the applicable time period, the agency official's responsibilities under section 106 are fulfilled.

(ii) (A) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall take into account the Council's opinion in reaching a final decision on the finding.

(B) The person to whom the Council addresses its opinion (the agency official or the head of the agency) shall prepare a summary of the decision that contains the rationale for the decision and evidence of consideration of the Council's opinion, and provide it to the Council, the SHPO/THPO, and the consulting parties. The head of the agency may delegate his or her duties under this paragraph to the agency's senior policy official. If the agency official's initial finding will be revised, the agency official shall proceed in accordance with the revised finding. If the final decision of the agency is to affirm the initial finding of no adverse effect, once the summary of the decision has been sent to the Council, the SHPO/THPO, and the consulting parties, the agency official's responsibilities under section 106 are fulfilled.

(C) The Council shall retain a record of agency responses to Council opinions on their findings of no adverse effects. The Council shall make this information available to the public.

(d) Results of assessment. (1) No adverse effect. The agency official shall maintain a record of the finding and provide information on the finding to the public on request, consistent with the confidentiality provisions of Sec. 800.11(c). Implementation of the undertaking in accordance with the finding as documented fulfills the agency official's responsibilities under section 106 and this part. If the agency official will not conduct the undertaking as proposed in the finding, the agency official shall reopen consultation under paragraph (a) of this section.

(2) Adverse effect. If an adverse effect is found, the agency official shall consult further to resolve the adverse effect pursuant to Sec. 800.6.

[65 FR 77725, Dec. 12, 2000, as amended at 69 FR 40553, July 6, 2004]

[Code of Federal Regulations]
[Title 36, Volume 3]
[Revised as of July 1, 2003]
From the U.S. Government Printing Office via GPO Access
[CITE: 36CFR800.6]

[Page 109-112]

TITLE 36--PARKS, FORESTS, AND PUBLIC PROPERTY

ON HISTORIC PRESERVATION

PART 800--PROTECTION OF HISTORIC PROPERTIES--Table of Contents

Subpart B--The section 106 Process

Sec. 800.6 Resolution of adverse effects.

(a) Continue consultation. The agency official shall consult with the SHPO/THPO and other consulting parties, including Indian tribes and Native Hawaiian organizations, to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties.

(1) Notify the Council and determine Council participation. The agency official shall notify the Council of the adverse effect finding by providing the documentation specified in Sec. 800.11(e).

(i) The notice shall invite the Council to participate in the consultation when:

(A) The agency official wants the Council to participate;

(B) The undertaking has an adverse effect upon a National Historic Landmark; or

(C) A programmatic agreement under Sec. 800.14(b) will be prepared;

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(ii) The SHPO/THPO, an Indian tribe or Native Hawaiian organization, or any other consulting party may at any time independently request the Council to participate in the consultation.

(iii) The Council shall advise the agency official and all consulting parties whether it will participate within 15 days of receipt of notice or other request. Prior to entering the process, the Council shall provide written notice to the agency official and the consulting parties that its decision to participate meets the criteria set forth in appendix A to this part. The Council shall also advise the head of the agency of its decision to enter the process. Consultation with Council participation is conducted in accordance with paragraph (b) (2) of this section.

(iv) If the Council does not join the consultation, the agency official shall proceed with consultation in accordance with paragraph (b) (1) of this section.

(2) Involve consulting parties. In addition to the consulting parties identified under Sec. 800.3(f), the agency official, the SHPO/THPO and the Council, if participating, may agree to invite other individuals or organizations to become consulting parties. The agency official shall invite any individual or organization that will assume a specific role or responsibility in a memorandum of agreement to participate as a consulting party.

(3) Provide documentation. The agency official shall provide to all consulting parties the documentation specified in Sec. 800.11(e), subject to the confidentiality provisions of Sec. 800.11(c), and such

other documentation as may be developed during the consultation to resolve adverse effects.

(4) Involve the public. The agency official shall make information available to the public, including the documentation specified in Sec. 800.11(e), subject to the confidentiality provisions of Sec. 800.11(c). The agency official shall provide an opportunity for members of the public to express their views on resolving adverse effects of the undertaking. The agency official should use appropriate mechanisms, taking into account the magnitude of the undertaking and the nature of its effects upon historic properties, the likely effects on historic properties, and the relationship of the Federal involvement to the undertaking to ensure that the public's views are considered in the consultation. The agency official should also consider the extent of notice and information concerning historic preservation issues afforded the public at earlier steps in the section 106 process to determine the appropriate level of public involvement when resolving adverse effects so that the standards of Sec. 800.2(d) are met.

(5) Restrictions on disclosure of information. Section 304 of the act and other authorities may limit the disclosure of information under paragraphs (a)(3) and (a)(4) of this section. If an Indian tribe or Native Hawaiian organization objects to the disclosure of information or if the agency official believes that there are other reasons to withhold information, the agency official shall comply with Sec. 800.11(c) regarding the disclosure of such information.

(b) Resolve adverse effects. (1) Resolution without the Council.

(i) The agency official shall consult with the SHPO/THPO and other consulting parties to seek ways to avoid, minimize or mitigate the adverse effects.

(ii) The agency official may use standard treatments established by the Council under Sec. 800.14(d) as a basis for a memorandum of agreement.

(iii) If the Council decides to join the consultation, the agency official shall follow paragraph (b)(2) of this section.

(iv) If the agency official and the SHPO/THPO agree on how the adverse effects will be resolved, they shall execute a memorandum of agreement. The agency official must submit a copy of the executed memorandum of agreement, along with the documentation specified in Sec. 800.11(f), to the Council prior to approving the undertaking in order to meet the requirements of section 106 and this subpart.

(v) If the agency official, and the SHPO/THPO fail to agree on the terms of a memorandum of agreement, the agency official shall request the Council to join the consultation and provide the Council with the documentation set forth in Sec. 800.11(g). If the Council decides to join the consultation, the

[[Page 111]]

agency official shall proceed in accordance with paragraph (b)(2) of this section. If the Council decides not to join the consultation, the Council will notify the agency and proceed to comment in accordance with Sec. 800.7(c).

(2) Resolution with Council participation. If the Council decides to participate in the consultation, the agency official shall consult with the SHPO/THPO, the Council, and other consulting parties, including Indian tribes and Native Hawaiian organizations under Sec. 800.2(c)(3), to seek ways to avoid, minimize or mitigate the adverse effects. If the agency official, the SHPO/THPO, and the Council agree on how the adverse effects will be resolved, they shall execute a memorandum of agreement.

(c) Memorandum of agreement. A memorandum of agreement executed and implemented pursuant to this section evidences the agency official's

compliance with section 106 and this part and shall govern the undertaking and all of its parts. The agency official shall ensure that the undertaking is carried out in accordance with the memorandum of agreement.

(1) Signatories. The signatories have sole authority to execute, amend or terminate the agreement in accordance with this subpart.

(i) The agency official and the SHPO/THPO are the signatories to a memorandum of agreement executed pursuant to paragraph (b)(1) of this section.

(ii) The agency official, the SHPO/THPO, and the Council are the signatories to a memorandum of agreement executed pursuant to paragraph (b)(2) of this section.

(iii) The agency official and the Council are signatories to a memorandum of agreement executed pursuant to Sec. 800.7(a)(2).

(2) Invited signatories. (i) The agency official may invite additional parties to be signatories to a memorandum of agreement. Any such party that signs the memorandum of agreement shall have the same rights with regard to seeking amendment or termination of the memorandum of agreement as other signatories.

(ii) The agency official may invite an Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to historic properties located off tribal lands to be a signatory to a memorandum of agreement concerning such properties.

(iii) The agency official should invite any party that assumes a responsibility under a memorandum of agreement to be a signatory.

(iv) The refusal of any party invited to become a signatory to a memorandum of agreement pursuant to paragraph (c)(2) of this section does not invalidate the memorandum of agreement.

(3) Concurrence by others. The agency official may invite all consulting parties to concur in the memorandum of agreement. The signatories may agree to invite others to concur. The refusal of any party invited to concur in the memorandum of agreement does not invalidate the memorandum of agreement.

(4) Reports on implementation. Where the signatories agree it is appropriate, a memorandum of agreement shall include a provision for monitoring and reporting on its implementation.

(5) Duration. A memorandum of agreement shall include provisions for termination and for reconsideration of terms if the undertaking has not been implemented within a specified time.

(6) Discoveries. Where the signatories agree it is appropriate, a memorandum of agreement shall include provisions to deal with the subsequent discovery or identification of additional historic properties affected by the undertaking.

(7) Amendments. The signatories to a memorandum of agreement may amend it. If the Council was not a signatory to the original agreement and the signatories execute an amended agreement, the agency official shall file it with the Council.

(8) Termination. If any signatory determines that the terms of a memorandum of agreement cannot be or are not being carried out, the signatories shall consult to seek amendment of the agreement. If the agreement is not amended, any signatory may terminate it. The agency official shall either execute a memorandum of agreement with signatories under paragraph (c)(1) of this section or request the comments of the Council under Sec. 800.7(a).

[[Page 112]]

(9) Copies. The agency official shall provide each consulting party with a copy of any memorandum of agreement executed pursuant to this subpart.

10th Civil Engineer Squadron

Internal Routing Slip

Flight/Section	POC	In	Comments	Initial	Out
10 CES/CC	Colonel Stonestreet				
DCE	KButala	(13)	Comments 1/9 Note	RSS	
CCE	Lt Hobson	13 Jun	Edits	KLH	13 Jun
CCS	JBurda	6/13/06	Made Corrections to CSS.	JP	6/13/06
CCF	MSgt Mater				
CSS	SSgt Krocak				
USAFA/CEC	SGann				
CECE	WBarton				
CECV	PMarne				
USAFA/CEP	RMagee				
CEPD	DBoyle				
CEPF	JKrasikov				
CEPH	JDickson				
	JBraeckel				
USAFA/CEO	RHenderer				
10 CES/CEF	Ch Piercy				
	Ch Staub				
	RFarrow				
10 CES/CEJ	ESmith				
CEJD	DDean				
	JPetty				
10 CES/CEC	DMechtly				
	BMcDonald				
10 CES/CEH	AMorgan				
	RKalnajs				
10 CES/CEO	DDurni				
	CDaniels				
10 CES/CEOC	TWiegman				
10 CES/CEV	BTobyne				
10 CES/CEX	JLima				
	VDaniels				

Date: 13 JUNE 06 Initiated By: RUSSELL HUME Due Date: 1 AUG 06

Comments: NEED 10 ADW/CC SIGNATURE ON USAFA HOUSING PRIVATIZATION ENVIRONMENTAL ASSESSMENT (EA) FINDING OF NO SIGNIFICANT IMPACT (FONSI)

CE Log:

EA Question Responses

Q: See nothing on/about the PA for this w/ NPS or SHPO.

A: Page 47 address coordination with SPHO on TCH. PA is not directly discussed

Q: What is status – thought need prior to solicitation and/or awd

A: This is the final document need signature. It needs to be signed prior to going to Selection Authority (SA), Mr. Kuhn, in Aug 06.

Q: Thought 25 and/or 50 years

A: 50-year deal only. No 25.

Q: CEQ?

A: Counsel on Environmental Quality as defined in 40CFR part 1500.

Q: Pages 1-20?

A: Pages 1-20 are not design, construction, or environmental requirement and hence are left out.

ADDED ON PG. 47
CHANGE

Why would standing
is they (PD)
needs some
agreement
w/ SHPO and
on PA
reflected
is such!

read page on
note stating that!
Pull of yellow stickies then



TOP OF
SHEET
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